December, 1942
TECHNOLOGY DEPT:

Yachting

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FEATURES IN THIS ISSUE

THE SUB-CHASERS OF WORLD WAR II ..... *By Herbert L. Stone*
THE 173'S—SUBMARINE SLUGGERS ..... *By J. H. Keatley, Lieut. Comdr. U.S.N.*
TWO'S COMPANY ..... *By Ruth Brindze*

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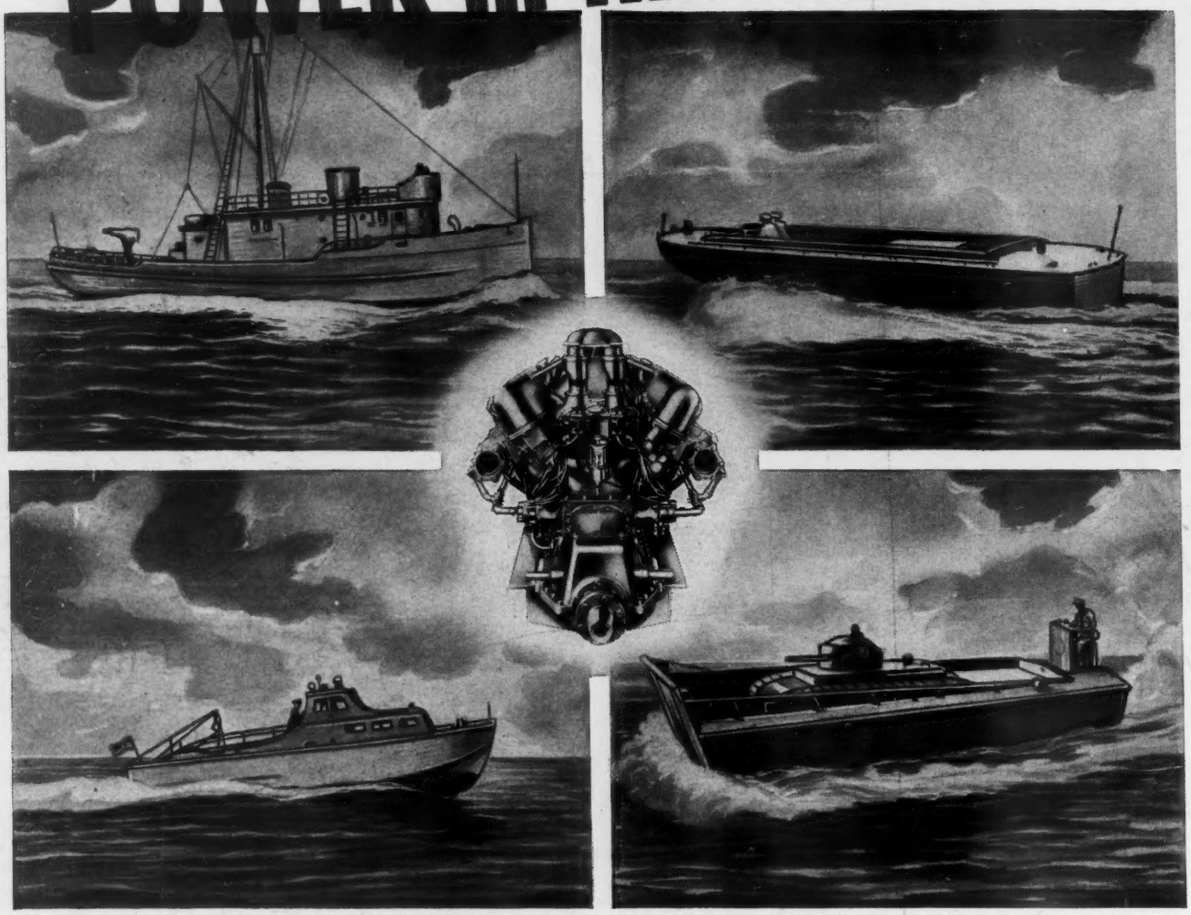

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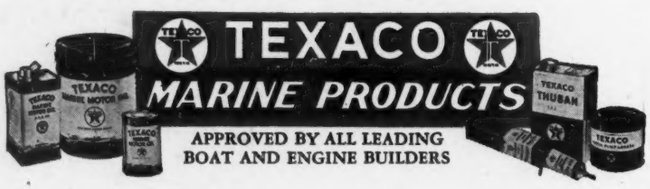

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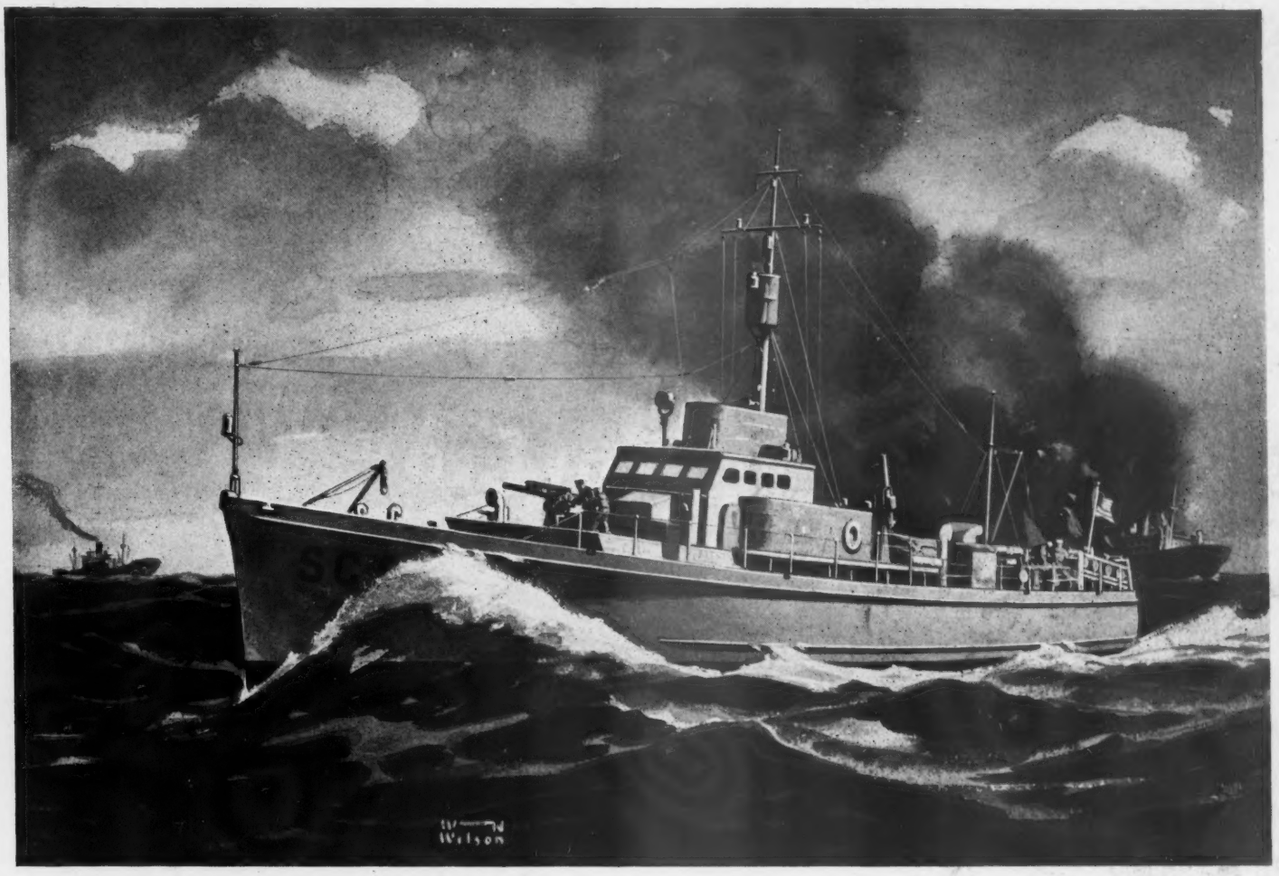

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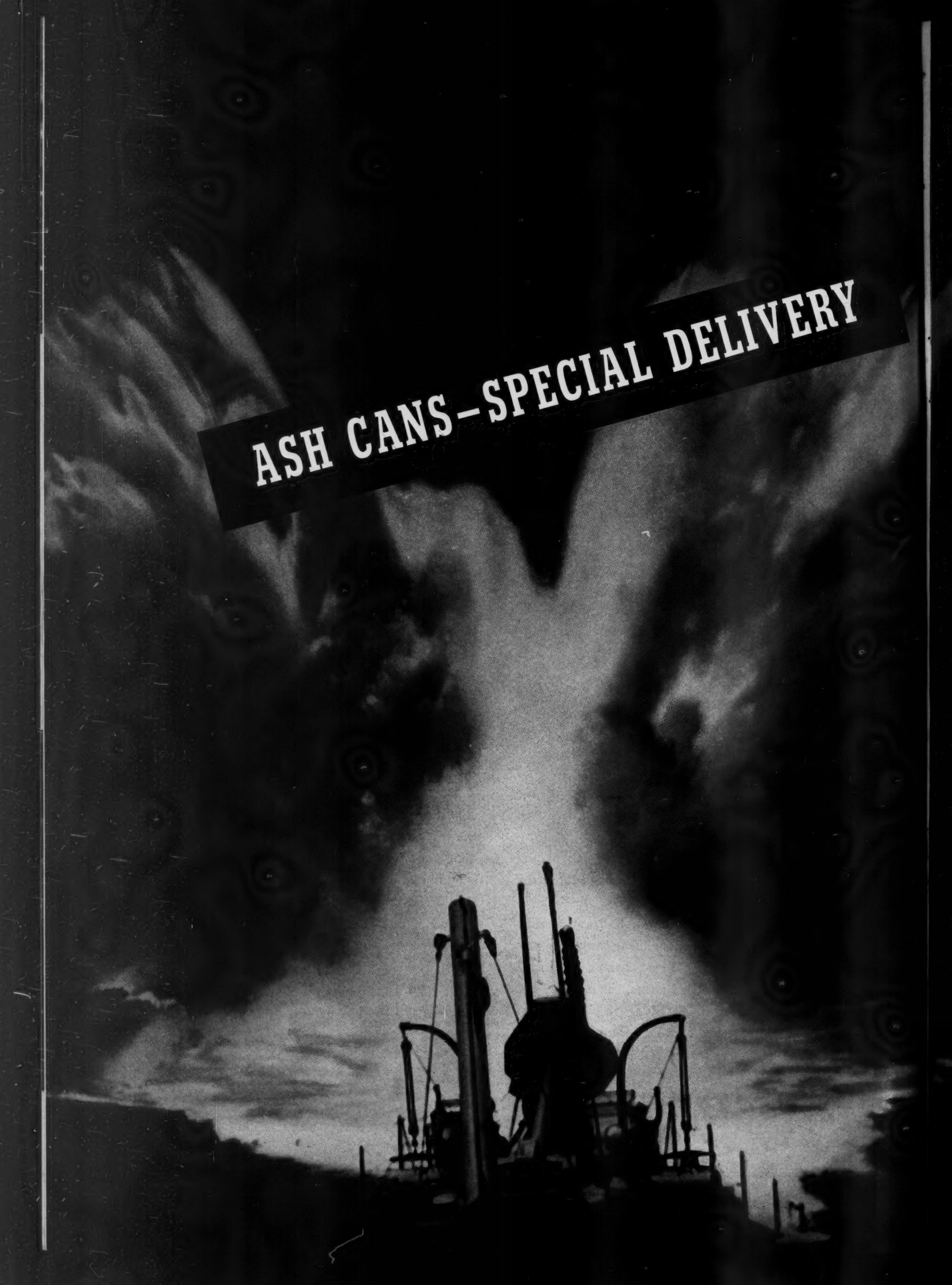
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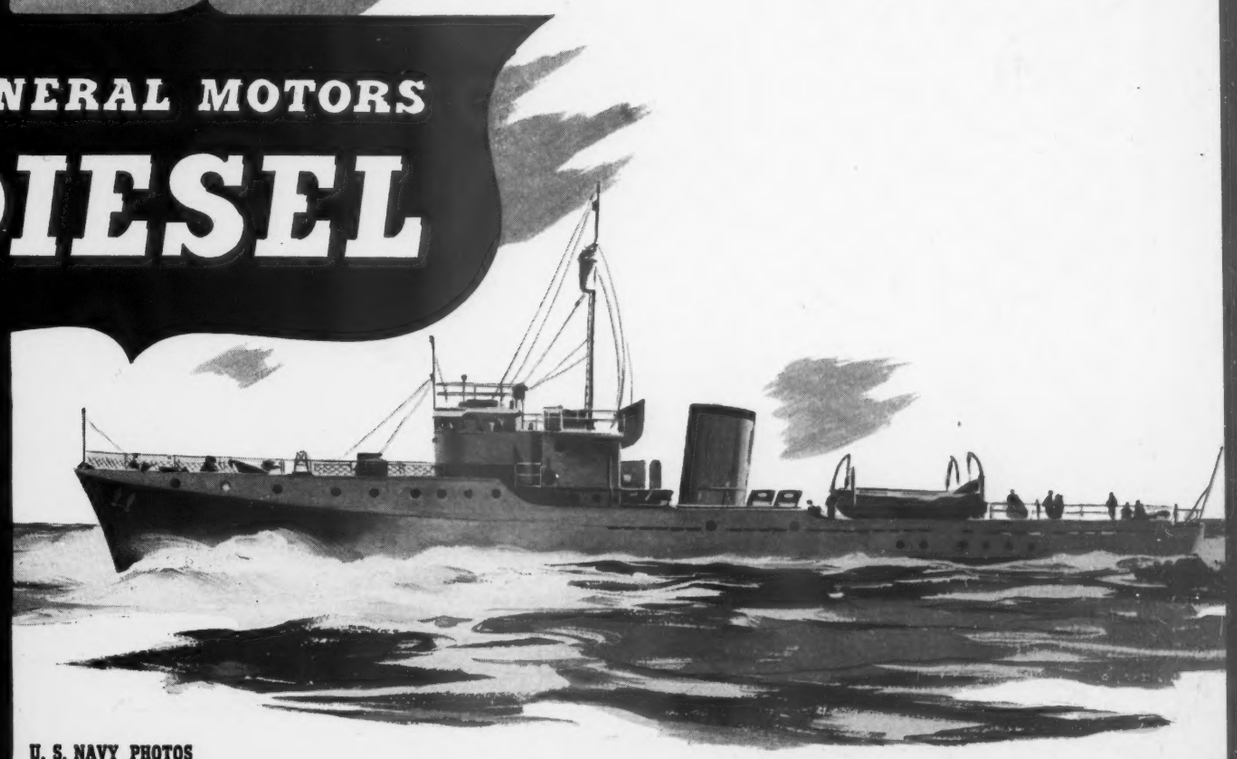

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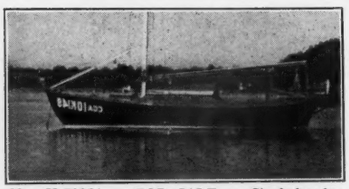

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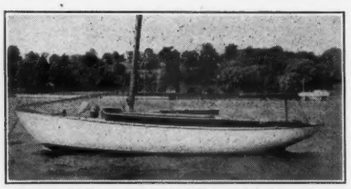

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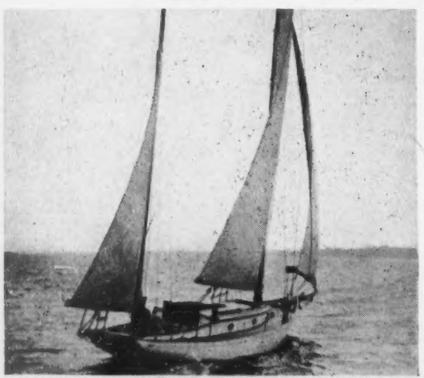

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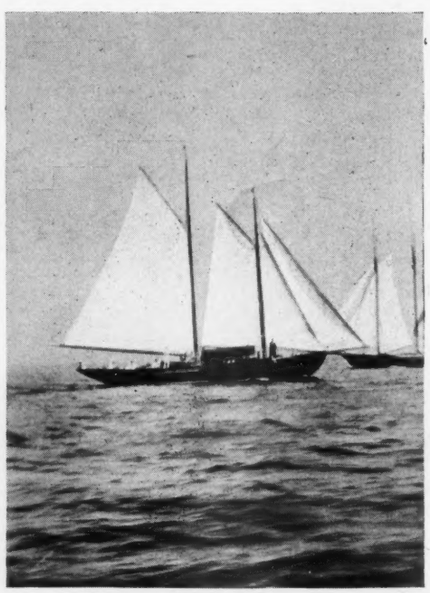

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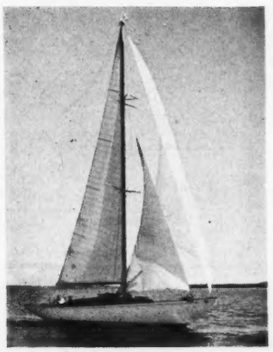

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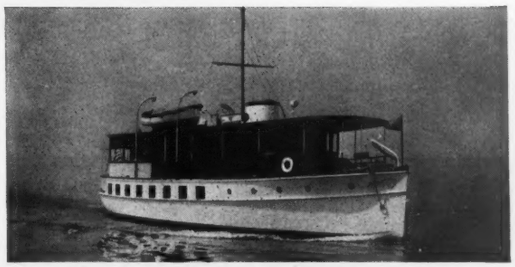

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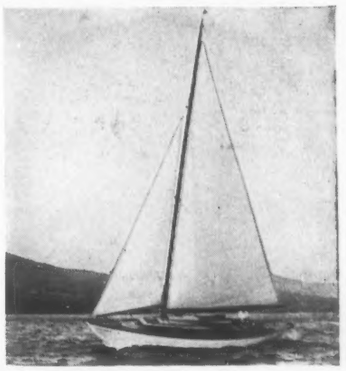

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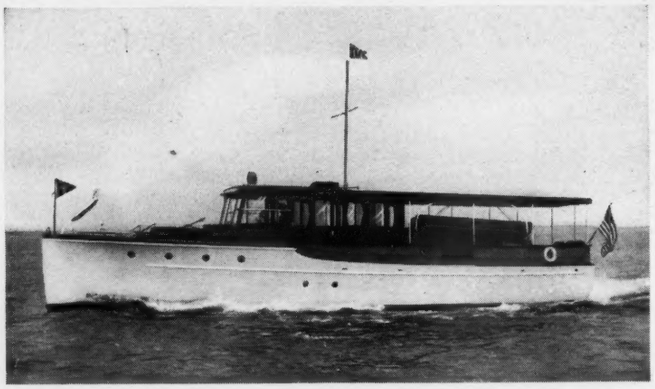

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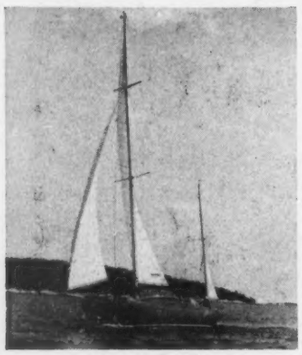

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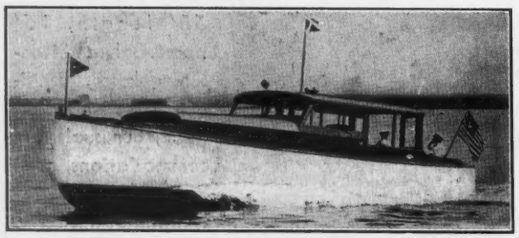

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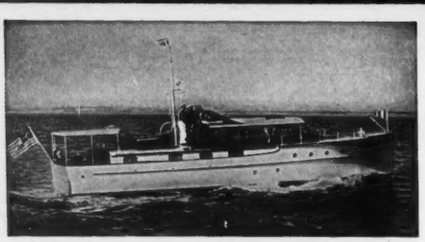

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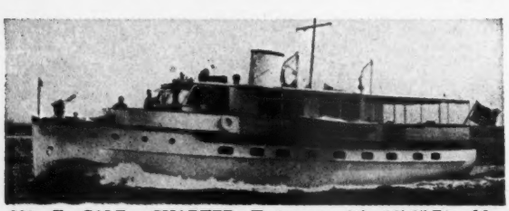

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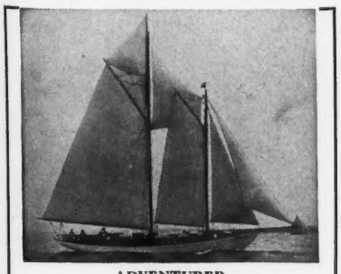

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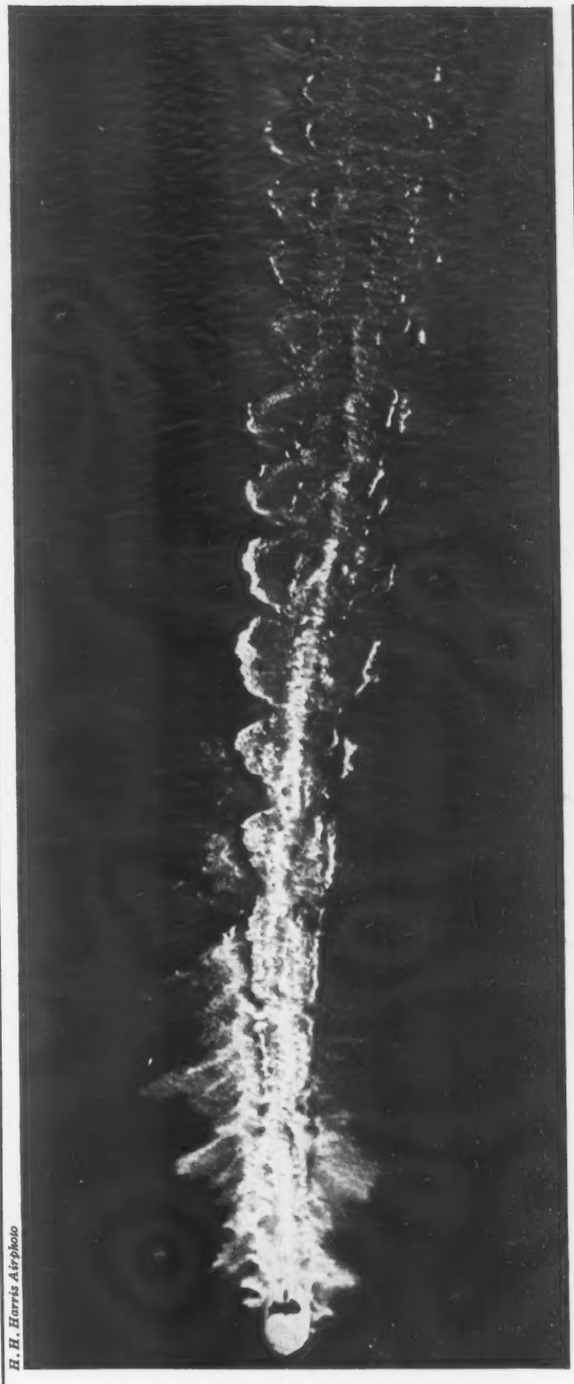

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VOL. LXXII
NO. VI

YACHTING

DECEMBER
1942

Aymar

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FRONT COVER . . . . . *From a painting by David Swasey*

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YACHT CLUB NEWS AND COMMENT

MOTION PICTURES FOR YACHTSMEN

▶ Having received numerous queries from yachtsmen and yachting organizations as to the source of motion pictures suitable for screening by yacht clubs and other nautical groups, the editors of YACHTING recommend the following films. Most of the films here listed are 16 mm., are available upon written request, and there is no charge for their use.

The following Navy films may be obtained from the Department of Public Relations of each Naval District:

American Sea Power — Stories of the men aboard U. S. warships.

Eyes of the Navy — Aircraft carriers and fleet operations.

Battle of Midway — Sea battle.

Menace of the Rising Sun — Rise of the militarists in Japan.

Service in Submarines — Life aboard a submarine.

Submarines at Sea — Operations of submarines taken while on maneuvers.

Men Make the Navy — The Navy Makes Men — Recruiting film showing how boys go through training, and indoctrination.

Safeguarding Military Information — Anti-loose talk campaign.

Washington in Wartime — Picture about the city of Washington, D. C., during wartime and its various functions, including all Navy buildings, personnel, etc.

Fight for Egypt — English propaganda film showing the defeat of Rommel (not the present battle).

Midway-Coral Sea Battles — Shows naval operations, sinking of the *Lexington*, gun firing, etc.

▶ The films listed below depict the work of the Coast Guard. All are in sound and their size is indicated. They may be obtained by by writing The District Coast Guard Officer of each Naval District:

Men of the Coast Guard (16 and 35 mm.) A general film depicting the more important activities of the Service, with special emphasis on training.

Cadet Cruise (16 and 35 mm.) Illustrates the life and work of the cadet while attending the Coast Guard Academy at New London, Conn., and while on a cadet training cruise aboard a Coast Guard cutter visiting foreign lands.

Offshore Patrol (16 and 35 mm.) Shows the work of the Coast Guard men aboard seagoing cruising cutters. Scenes show actual patrol in the North Atlantic and life aboard a ship on weather patrol station.

The Coast Guard Academy (16 and 35 mm.) Illustrates the various activities comprising student life at the Coast Guard Academy at New London, Conn. Drills, study periods, training in small boats, machine shops, living quarters, sports and social activities are depicted.

The Coast Guard Academy (16 mm. — color.) Somewhat similar to above. Released in 1942.

▶ "A List of U. S. War Films" may be obtained by writing the Bureau of Motion Pictures, Office of War Information, 1400 Pennsylvania Ave., N.W., Washington, D. C. A complete catalogue of such films, with the names of local distributors, is furnished. Among such films are:

Lake Carrier (16 and 35 mm. — sound.) The part played by lake freighters on the inland waterways carrying iron ore 1,000 miles to the steel mills of midwest industrial cities. Narration by Frederic March.

Men and the Sea (16 and 35 mm. — sound.) Presented by the U. S. Maritime Commission and dedicated to American merchant seamen, this picture shows the training of the men who man the cargo ships.

OFF SOUNDINGS CLUB ELECTS NEW OFFICERS

▶ At the Annual meeting of The Off Soundings Club, the following officers and committees were elected for the forthcoming year: Paul A. Sperry, commodore; G. W. Blunt White, vice commodore; Edgar S. DeMeyer, rear commodore; Edward Southworth, secretary; Eliot L. Wight, treasurer and Edward F. Sutherland, measurer.

The Board of Governors, in addition to the commodore, vice commodore and rear commodore, include E. S. Bradford, Jr. and Sanford Lawton. The Race Committee includes Dr. Eugene Walker, chairman, Robert Toppin and Sanford Lawton. O. S. Bennett is chairman of the entertainment committee, with T. M. Russell, Jr., and O. S. Bennett as committeemen. E. S. Bradford, Jr. was appointed chairman of the membership committee and Eliot L. Wight will serve as historian.

NEW OFFICERS FOR CORINTHIAN Y.C.

▶ At the November 5th meeting of the Corinthian Yacht Club of Washington, D.C., the members chose the following to guide the destinies of the club for the ensuing year: Commodore, C. Emery Galliher; vice commodore, Harry E. Smith; rear commodore, Arthur M. Hahn; recording secretary, Wm. H. Wiegering; treasurer, Roland N. King. Lewin W. Walker was again reëlected secretary-treasurer and C. E. Ingling, J. H. Galliher and Frank A. Schroff were chosen as trustees.

NORWALK YACHT CLUB ELECTS

▶ At the annual meeting of the Norwalk Yacht Club on October 24th, the following officers were elected: Commodore, Edward B. Gallaher; vice commodore, George F. Bearse; rear commodore, John B. Lord; treasurer, Lewis O. Wardwell; secretary, Reginald S. Smith. All the foregoing gentlemen were reëlected.

Daniel F. Seacord, Howard W. Gorham and William B. Unholtz were chosen as members of the governing board to serve for a term of two years. Hobart Ford, John Gwilliam and Ralph Case, members of the board, still have a year to serve.

FOR FLORIDA FISHERMEN

▶ The Navy, which on October 14th banned night fishing in waters of the Seventh Naval District, designating only two approved anchorages where boats might remain during the hours of darkness without returning to port, has designated four additional anchorages for the convenience of fishermen.

Vessels fishing in the vicinity of Anclote Key, Crystal River, Cedar Keys and Steinhatchee River may anchor at night in designated areas, with engines stopped and lights dimmed to a minimum. The new anchorages are:

Anclote Key: North of a line between Jetty light and Anclote Key light, and south of a line extending 315° true from Jetty light.

Crystal River: Inside of Shell island.

Cedar Keys: Inside the flashing white light off Depot Key, and to the north of Depot Key to the town of Cedar Keys.

Steinhatchee River: Inside flashing buoy No. 21.

IDENTIFICATION CARD REGULATIONS IN FLORIDA

▶ Until the exigencies of wartime demand further modification of rules governing identification of persons embarking at Florida ports, both resident and visiting anglers may count on uniform requirements in this connection throughout the Seventh Naval District.

To obtain conformity, district Coast Guard headquarters in Miami instructed all section Coast Guard officers and captains of the port to observe the following order in checking up on groups and individuals afloat:

"Coast Guard identification cards will be required of all members of the crews of both charter boats and private fishing boats. Personal identification such as may be satisfactory to captains of the port will be required of all passengers on both charter boats and private fishing boats."

Whereas, previously, considerable confusion has resulted from conflicting requirements by various port captains, the chief of staff of the Coast Guard in this district now considers this new regulation entirely equitable.

NEW AFTERGUARD AT ALGONQUIN Y.C.

▶ The following officers were elected to guide the Algonquin Y.C., Rochester, N. Y., for the season of 1942–43: Commodore, Arthur Barthold: vice commodore, Ted Sweet; treasurer, Lillian Ash; secretary, Olive Meyer; Comet fleet captain, Richard Claver; Comet fleet secretary, William Stark; Lightning fleet captain, Edward Crane; Lightning fleet secretary, Doris Ash.

ALEXANDER CROSBY BROWN JOINS NAVY

▶ Alexander Crosby Brown, long associated with The Mariners' Museum of Newport News, Va., has received a commission as lieutenant, junior grade, in the Navy.

NEW OFFICERS CHOSEN

▶ The men who will guide the destinies of the National One-Design Association for 1943 have lately been elected at a meeting held in Chicago. They are: Commodore, Gerrit D. Foster, of Milwaukee (reëlected); vice commodore, Edward Dodez (reëlected); rear commodore, Victor Pyle, Muskegon; secretary-treasurer, John S. Best, Milwaukee.

Mosquitoes Massacre Monsters!

A HANDFUL of Elco PT's are doing another magnificent job . . . this time in the Solomons . . . sinking big enemy vessels or putting them out of action for months to come.

Pitting themselves against giant Jap warships, these mighty midgets of ours are handing out terrific punishment the enemy won't soon forget. As we go to press, official Navy communiques record numerous Solomon Island victories for PT's. Among them: (1) One cruiser badly damaged or sunk. (2) One torpedo hit scored on a destroyer . . . stopped when last seen. (3) Attacked two enemy destroyers . . . one believed to have been sunk. (4) Attacked two enemy destroyers . . . scored a torpedo hit on one. Note that in these last two separate actions our daring little PT's took on not one *but* two Jap destroyers at a time!

Is it hard to believe that these speedy "mosquitoes" can sting with such destructive effect? Not if you actually know the "poison" that is built into them! Wartime secrecy forbids disclosure of details, of course, but Elco PT's possess amazingly high sea speed and maneuverability . . . phenomenally wide cruising range . . . and, as the Japs well know from distasteful first-hand experience, our PT's have devastating fire power, with torpedoes and machine guns and other hard-hitting armament we're not telling the world about!

Naturally we're proud of these Elco PT's and the job they're doing . . . just as we're proud of our Navy which has used them so tellingly, and proud of our Navy men who have handled them with epic courage, daring and deliberateness.

ELCO NAVAL DIVISION OF THE ELECTRIC BOAT COMPANY

BAYONNE, N. J.

MOTOR TORPEDO BOATS • SUBMARINE CHASERS • NAVAL AUXILIARIES

Elco

What Our Readers Say

THE LITTLE CUTTER "SNARLEYOW"

Editor, YACHTING:

▶ Whatever her drawbacks, and they were said by Americans to have been many, the old British cutter of sixty years ago could not capsize. This was the belief of partisans, but the picture proves that they were wrong; we see a cutter with keel uppermost, like an American sandbagger.

In 1880, a young Baltimorean, Edward M. Padelford, came to New York and began a career of yachting that lasted through a long life. His first yacht was the old schooner *Nokomis*, better known by her original name of *Nettie;* the panels of yachting scenes now in the bar of the New York Yacht Club were painted to his order for the saloon of *Nokomis*. In 1881, he joined the Seawanhaka Corinthian Yacht Club and became a convert to the "cutter craze" recently inaugurated by this club. In 1882, he bought the cutter *Mona*, a little later he was joined by his brother Arthur who, in 1883, built from the design of John Harvey, M.I.N.A., the cutter *Ileen*, 65′ l.w.l., 11′ breadth; the narrowest of all the narrow cutters of that era. In working with Mr. Harvey over the plans of the new yacht, they learned of a miniature cutter which he had designed in England, to be carried on the davits of a large yacht for an occasional sail. A duplicate of this yacht was ordered by E. M. Padelford and was built by John T. Smith, a builder of all classes of rowboats, on South Street, New York. Hearing of this novel craft, I made my way to South Street and saw her "on the ways" on the third floor of Smith's shop.

▶ *Frolic*, as she was named, was a perfect example of the art of the old-time British shipwright; all the conventions of cutter building were strictly observed, all plank ends were nibbed in, and there were no feather edges anywhere. She was planked with teak on the ribband-carvel system. Her dimensions were: l.o.a., 14′ 10″; l.w.l., 11′ 10″; breadth, 3′ 6″; draft, 3′. For her type she was very wide, almost 3½ beams, as the phrase then went, compared to *Ileen's* six beams. Her ballast, about 900 pounds, was bagged shot, shipped after she had been lowered from the davits.

The rig was most peculiar, one sail of 115 square feet, the boom fitted with a jaw on one side working between two collars on the mast, one preventing it rising. The fore end of the boom projected for a couple of feet forward of the mast, with a tripping line to the masthead which prevented it from lifting and the sail from goose-winging. There was also a sprit topsail of 22 square feet area.

After using her for some years, Mr. Padelford gave her to an associate, Charles A. Stevenson, of the Larchmont Yacht Club, and under his ownership she was sailed by a young boy — now the gray and grizzled "Butts" Whiting. For many years after she lay idle in the club boathouse, every paintbrush in the club being worked out on her starboard side. A few years before his death Mr. Stevenson gave her to me as the last of the "cutter cranks." Having *Snikersnee* in commission, I was unable to use her; I built a roof over her on my property in Bayside and left her in inglorious ease, though always with the hope that I might again sail a cutter before "swallowing the anchor." As the name meant nothing, I changed it to *Snarleyow* in remembrance of the famous novel by Captain Marryatt.

▶ A short time since, my friend Billy Atkin saw her and asked to be permitted to refit her, saying that his two boys would be glad to undertake the work. My consent quickly given, they came over with a car and trailer, took her out of the shed and, on my suggestion, landed her, keel-up, on the trailer, on which she made the voyage safely to Darien, Conn.

The question of rig was an important one. The old rig, of which little was left, was freakish, and the only thing really appropriate to the old cutter hull would be the conventional cutter rig, with running bowsprit and heavy, complicated rigging. We finally decided to give the old hull all the advantages of the modern pole-masted, jib-headed rig, with hollow mast, to permit her to show her form to the best possible advantage. The hull is as sound today as when it was launched. We hope to have her afloat next spring.

W. P. STEPHENS

Bayside, L. I.

The cutter "Snarleyow" heads for her new home port of Darien, Conn. Her passage, in this somewhat ignominious position, was an untroubled one — save for one flat tire!

ON THE BOTTOM

Editor, YACHTING:

▶ I feel quite certain that Commander (now Captain) Edward Ellsberg, U.S.N., needs no introduction to the readers of YACHTING. As an outstanding naval officer, as an expert of diving and salvage (remember the *S-51*?) and as the author of many popular books — "On the Bottom," "Hell on Ice," etc. — he has won for himself an enviable reputation. The following letter, just received from "Somewhere East of Suez," will interest his friends.

HOWARD LEWIS

New York, N.Y.

The letter follows:

▶ I got out here to find the Italians and the Germans had made a first class wreck of the place, both afloat and ashore. Such a vast array of wrecks I never expected to see anywhere; the ships are scuttled literally in rows wherever you look. We turned to when my first divers arrived and started in with practically no equipment at all except two diving rigs which had come from home. Our first attempt was on the most valuable prize of all, a sunken drydock which the Italians had scuttled by exploding seven bombs in the lower holds or pontoons, to blast seven huge holes in the bottom of the dock. Through any of them you might easily have driven a Fifth Avenue bus. The British had looked that dock over with their divers when first they captured this place, but an official report to their Admiralty classed salvage as not practical — which recommendation the Admiralty had approved — and they had abandoned any attempt to raise it.

▶ But we badly needed that dock here. So, without any salvage equipment except what I could borrow from the British themselves, in this port, I turned to on that dock with thirteen Americans and our two diving suits. In nine days from our start, we had it fully afloat. Our British friends out here are still rubbing their eyes over that one; what the Italian naval captain, who did the most devastating scuttling operation on that dock ever carried out on anything, thinks about it, I'd give a lot to know.

▶ Our second effort was on a large German merchantman scuttled to block off the approach to an important oil loading terminal; this one had all the sea valves removed as well as a large hole forward from another huge bomb. In all, I guess we had nearly thirty holes in her, large and small, to patch. Still working with antique British borrowed equipment, which continually kept breaking down and nearly killed us all before we got through, we had a tough time on the bottom with her. Our last five days on that job, we worked straight through, with practically no sleep (I got a total of about six hours' sleep and my men no more), to bring that ship up and keep her right side up in the process. But, on the Fourth of July, we got our reward when we brought her into port afloat again with the Stars and Stripes flying proudly over her Nazi colors. That is the score to date. Our own equipment has arrived at last and now we are working on another Nazi ship.

▶ As you know, all my diving before has been in cold water where the problem was how to keep from freezing to death. Here it has been quite different, due to the hot water but, oddly enough, we still have to wear a suit of woolen underwear every dive to keep the canvas rigs from chafing our hides off. There are a few other problems, of which prickly heat, which keeps us all wriggling like snakes, is the worst.

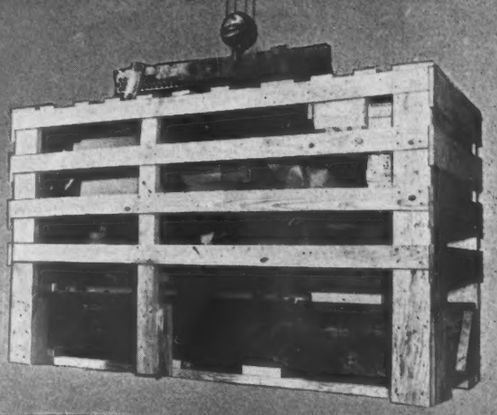
I'm perfectly willing to believe that this place is the last stop this side of hell, but so far we've managed to keep on working and I think we have now weathered the worst of the heat and the humidity. Last June, it ran between 149° F. and 163° F. out on the drydock where we were working on repairs; I've never tried to take the temperature again since.

Ashore, I managed to get all the sabotaged machinery going again in the Italian workshops, so now we are in fair shape to carry on what the place is intended for. When all our American equipment gets here, we'll have quite an establishment.

NED ELLSBERG

We can tell you this much now about

YOUR NEXT ENGINE



It will have:

1. **More Power per Pound**
2. **Greater Fuel Efficiency**
3. **Important Standardization of Parts**
4. **And...a lower price**

The next Grays will have the developments that have been built into these engines for today's extreme conditions.

For Fighting Engines must have that extra something. It takes more "stuff" to win a mechanized war than it does to win on any other tough job.

The accumulated experience of 5 million marine horsepower, plus all the experience of today's important job, is being built into the new Grays.

Two summers before Pearl Harbor, Gray Marine Diesels were selected by engine-wise General Seafoods Corporation to power its new shrimp fleet. These engines were selected because they represented the maximum in "power per pound," smoothness and reliability. Today these boats are nearly all in government service. For tomorrow's shrimp boats, there will be still more powerful, less expensive Gray Diesels, super developed for battle.

GRAY

MARINE MOTORS

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Detroit, Michigan

IN THE WIND

▶ There is no sport in the world (except yachting, of course) like that of *confounding the critics*, who are generally spoilsports, anyway, and a confounded nuisance. . . . The fact that the so-called Offshore Patrol, composed of a fleet of seagoing ex-pleasure craft operating under the aegis of the Coast Guard, has been consistently demonstrating its extraordinary usefulness and efficiency since its organization — opposed in certain unofficial quarters — is a fine tribute to the courage, resourcefulness and ability of the personnel who volunteered for this hazardous service and to their faith in themselves and their boats. . . . It has *utterly* confounded the critics. . . . At this writing, "Spun Yarn" could not be reached for comment but, confidentially, I understand he can be *reached*. . . .

▶ To give that ole davil seaman his due, however, I must, with some natural reluctance due to columnal competition (usually unfair), quote a young ensign friend of mine to the effect that "Alf" had proved the best commanding officer (and the most agreeable) whom he could ever imagine serving under. I might add that the young man in question is of excellent character and judgment. . . .

▶ About the only thing our marines in the Pacific aren't taking is Solomons' wives. . . .

▶ General Winter is reported to be freezing a number of German regiments at their present level — which is considerably below par. . . .

▶ Hitler's *New Order* turns out to be — *Retreat!*

▶ The threat of death from the air, from the surface of the sea and from the depths hasn't deterred thousands of tough-fibered old shellbacks from answering the call of the War Shipping Administration for men with experience to man vessels as vital to the war effort as are our more spectacular fighting ships. . . . WSA reported some time ago that more than 16,000 former merchant marine seamen and engineers had volunteered for sea duty. . . .

Being at sea under practically any conditions (rubber rafts excepted) is naturally preferable to being ashore, in the opinion of most old salts and, when you add the patriotic motive, it's no wonder so many of them have been rarin' to get back into harness. . . .

▶ By the way, since a blue water veteran is commonly referred to as an *old salt*, why shouldn't a familiar of the Great Lakes be called an *old fresh*, since those waters breed as able sailors, I'm told? . . .

▶ Ira Hand, maestro of the Motor Boat Shows (remember?) and Secretary of the National Association of Engine and Boat Manufacturers, pointed out the other day that practically every member firm of the organization was engaged in war production and many had won the coveted "E" pennant. . . . He also stressed the fact that, in addition to the contributions made by plants whose normal function was the building of yachts, was that of yachtsmen themselves, hundreds of whom had given their craft and their personal services to the service of their country. . . .

▶ Referring to my comment on the ship model shown astern of President Roosevelt in a photograph when he was making an address to the nation, H. A. Scheel, of Alexandria, Virginia, sends me a post card on which is scribbled:

Re paragraph 4, page 14 of October Yachting. How about the Down East "Pinky"!!!!! Gee!

Well, how about it — or her? . . . If I erred in referring to said model as that of a lateen-rigged two-master, without enough of her showing for one to make out what specific type of Mediterranean craft she is, I want to be the first to admit it — and to congratulate my correspondent on his discernment and Love of Truth. . . .

▶ The war news looks so good at this point that American families are looking forward confidently to the not-too-distant day when the only fighting will be done in the home. . . .

▶ With food rationing becoming increasingly drastic, maybe we should adopt the theme song, *'Til We Eat Again*, for the duration. . . .

▶ I am all for the WAVES — and I trust they are all permanents — particularly the little ripple that went undulating through the Grand Central Station the other day looking as if she had a family crest. . . .

Of course, their hotel at Northampton is their "ship," its floors are "decks," its stairways "ladders," and their commanding officer is the "old man" although she's a comely woman of less than middle age. . . . In the seamanship class, the gals seem to be most proficient in learning to tie the lovers' knot. . . .

▶ The late Cap'n William H. Mott, who was born near Wading River, Long Island, and took to water like a duck at the age of thirteen, took to ducks like water after his vessel, the *Arvesta J.*, was lost off Hatteras a quarter-century ago. . . . The skipper had been trading down South America way and

was in love with his ship, of which he was master and owner. . . . After she broke up he went back to Long Island and started raising ducks at Eastport, a venture which never went on the rocks over a span of many a year. . . .

Personally, I have always been partial to the duck — one of the gentlest of animals. . . . Who ever heard of anybody being bitten by a duck? . . . Not even a wild duck. . . .

▶ We may get back to yachting as usual a lot sooner than we think, and then, when the guys who were in the last war but failed to make the grade in this one, involve themselves in a gam with the chaps who served in the present mêlée, which by that time will have become the *last* war, the oldsters will feel the way the gallant Spanish War vets did when debating with the vintage heroes of 1918. . . . My only hope is that the guys in the Navy won't have forgotten all they know about sail boatin' by the time they get back to normalcy. . . .

▶ Judging from the erratic course Admiral Darlan steered, he didn't even know how to navigate. . . .

▶ In his masterpiece, "The Story of Sailing," that antic writer and artist, James Thurber, observes: "The boom is worse than the gaff for some people can stand the gaff . . . but nobody can stand the boom when it aims one at him from the floor. . . . Helmsmen will tell you that they keep swinging the boom across the deck to take advantage of the wind but, after weeks of observation, it is my opinion that they do it to take advantage of the passengers. . . . The only way to avoid the boom and have any safety at all while sailing is to lie flat on your stomach in the bottom of the ship. . . . I recommend the posture highly, but not as highly as I recommend the bicycle. My sailing adventures in Bermuda have made me appreciate for the first time the essential wonder of the simple, boomless bicycle. . . . "

Apparently, Mr. Thurber hasn't encountered those bicycle-like contraptions they sail on the sands at Sea Island, Georgia. These, unless memory fails me (as I find it does more often than not these frantic days), have booms. . . .

Incidentally, *tout le monde* wouldn't mind being hit by a business boom *apres la guerre* but it's more likely to be floored by a knockout blow to the pocketbook. . . .

▶ This Christmas there's no *peace on earth* but there's plenty of *good will toward men* — provided they're on our side. . . .

▶ A correspondent raffishly suggests that one might refer to a *sarong* as a *buttock shroud*.

▶ Skip Getchell sent this compartment a communiqué signed *unreliably yours* with the consequence that I can't print it. . . .

TELLTALE

HOMEWARD BOUND!

The end of a perfect day for our crew of the "We Four," with all hands enjoying that pleasant tired feeling. For honest-to-goodness recreation, you can't beat a day on the water.

1842 ☆ 1942

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Mutual **INSURANCE** *Company*

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Atlantic Yacht Insurance is for owners of sail- and motor-boats. It is non-assessable (Atlantic has never had the power to assess its policy-holders), and offers you prompt and ungrudging adjustments. Also a share in profits, regardless of your own losses. Consult your broker.

EVERY ATLANTIC POLICY IS BACKED BY A LONG RECORD OF PROMPT AND UNGRUDGING LOSS SETTLEMENTS. A LIST OF SURVEYORS LOCATED ALONG THE ATLANTIC COAST AND ON THE GREAT LAKES IS FURNISHED WITH THE POLICY. NOTIFICATION TO THEM OF LOSS OR DAMAGE WILL MEET WITH IMMEDIATE RESPONSE, THUS INSURING PROMPT REPAIRS OR OTHER NEEDED ATTENTION TO YOUR YACHT.

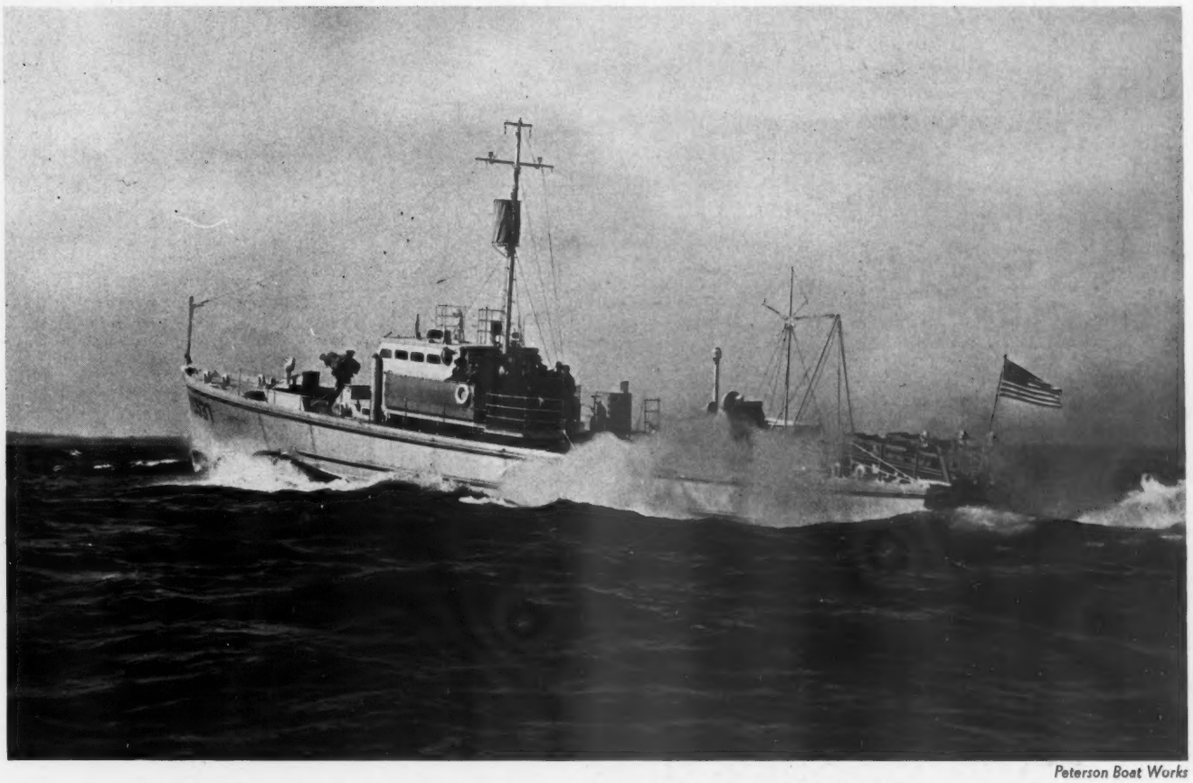
Official U. S. Navy Photo

THE PC's NERVE CENTER

From the wheelhouse, the officer of the deck directs the vessel's movements and keeps in constant communication by battle telephone with vital parts of the ship during action

YACHTING

Volume LXXII DECEMBER + 1942 Number VI



Peterson Boat Works

A product of American designing and constructional skill, the SC sub-chaser is 110 feet of compact efficiency

THE SUB-CHASERS OF WORLD WAR II

The 110-Footers, What They Are Like and Why They Are As They Are

By HERBERT L. STONE

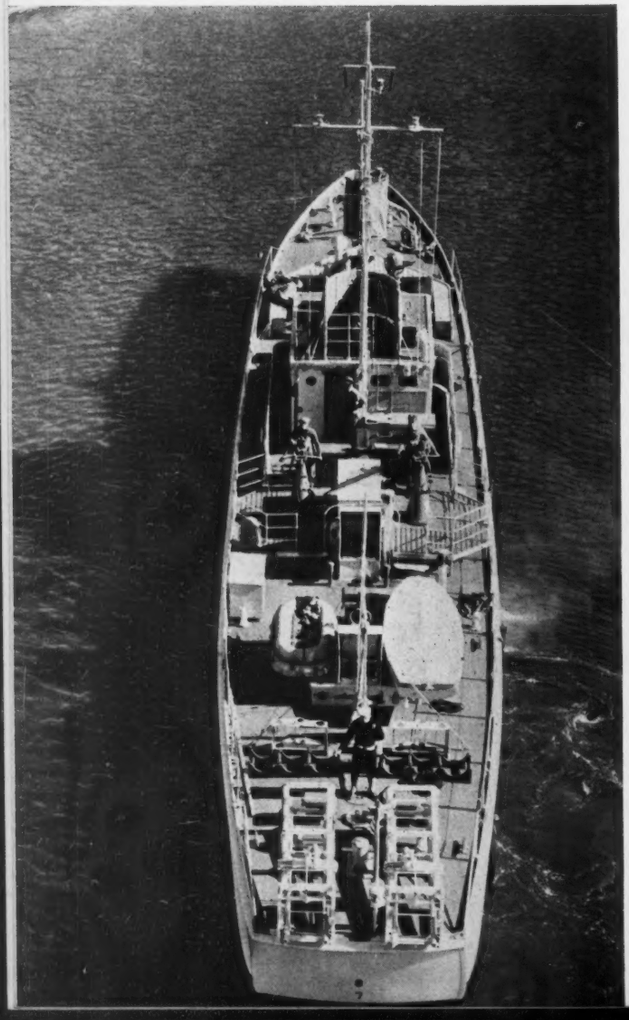
WORLD WAR I saw for the first time submarine warfare on a large scale. In the ruthless use of a great number of undersea craft which had been highly developed by Germany and Italy, these countries dealt a staggering blow to Allied commerce that threatened, by late 1916, to bring about the defeat of the Allies. Some method of successfully combating the menace had to be found, and that quickly. Large vessels and a powerful fleet were obviously not the solution. But the answer was on the way, although it was some time before it became apparent. It lay in the development of the depth bomb, of a large fleet of small fast vessels to carry them and, later, in the perfecting of underwater listening devices to help in locating the deadly undersea marauders. In other words, in a fleet of sub-chasers designed primarily for service against submarines.

It was the depth charge that finally broke the morale of Germany's submarine crews. Dropped or fired from destroyers and an ever-increasing number of American-built small craft that harried the subs wherever they could operate, the toll they took was high. Germany has since admitted that approximately 25 per cent of her acknowledged submarine losses were caused by depth charges. The British first made use of small craft to harry the submarine when they built the famous ML's, placing the order for the boats and engines in America. Designed by Irwin Chase, the boats as finally built were 80 feet in length with a speed of 15 knots. An order for 550 of them was placed with The Elco Company and all of them were turned out in 550 working days. It was some task, but it was completed, and they played an important and spectacular part in the naval warfare off the coasts of the British Isles and France.

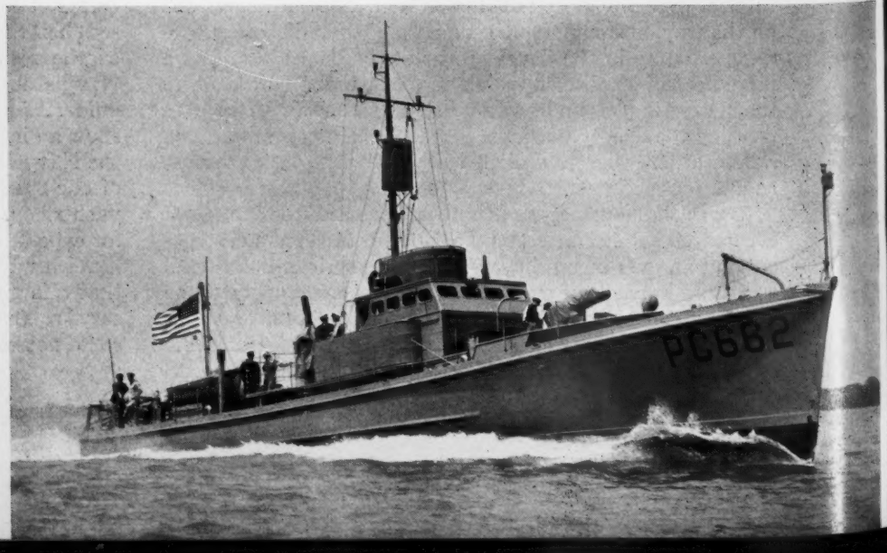
When the United States entered the war in 1917, largely as the result of submarine sinkings, we had the British Navy's experience with the operation of the ML's as a guide. As early as the summer of 1916, our Navy began to show an interest in means of combating the submarine and the Navy Department made a survey of the potential value of our fleet of larger yachts and sought the coöperation of yachtsmen. It even actually ordered two small wooden boats for experimental purposes.

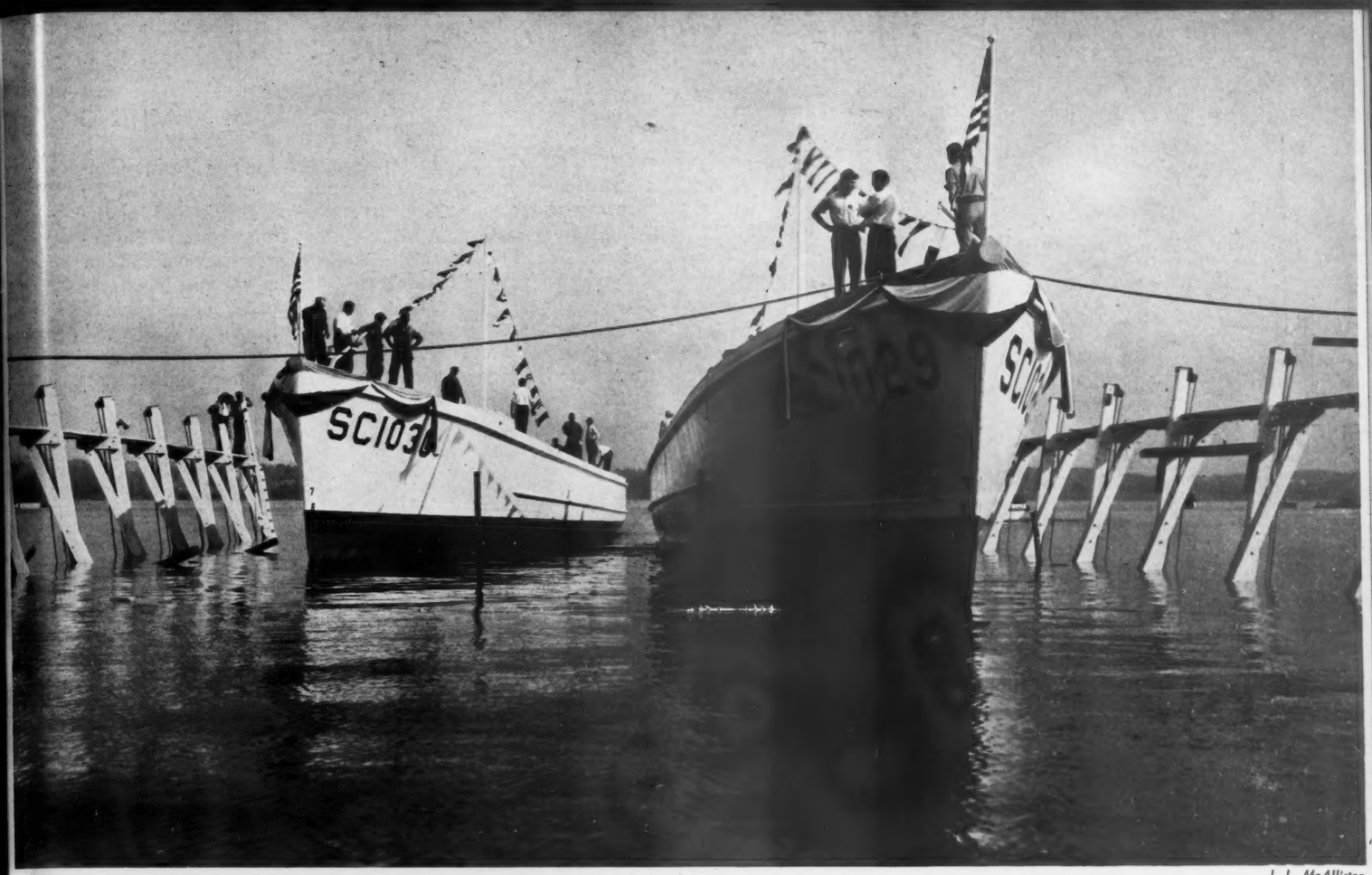
With war daily becoming more imminent, it was decided that a large fleet of small, fast seagoing vessels was necessary, as the larger destroyers, which the Navy preferred, could not be built fast enough. So the Navy Department en-

THE SC's REVIVE THE SPIRIT OF IRON MEN AND WOODEN SHIPS



Above, 110-footers, in various stages of construction, at the yard of W. A. Robinson, Inc. Left, almost yachtlike is SC 1066. Depth charge racks are aft and anti-aircraft guns are nearly amidships. Not an inch of deck space is wasted. She is from the yard of Burger Boat Building Co. Right, many an ocean racer would envy the smooth planking of PC (now SC) 501. She was constructed by the Seabrook Yacht Corporation. Below, the Fisher Boat Works has long been prominently identified with the SC building program. Here is PC (now SC) 662 picking up speed on her trial trip





L. L. McAllister

These twin sisters, just out of their launching cradles, were built by the Donovan Contracting Co. Left, SC 1064, built by Burger. Right, the 110's are Diesel-powered and have a remarkably small turning radius. SC 1013 is from Luders

Seaf Photo Service

Peterson Boat Works

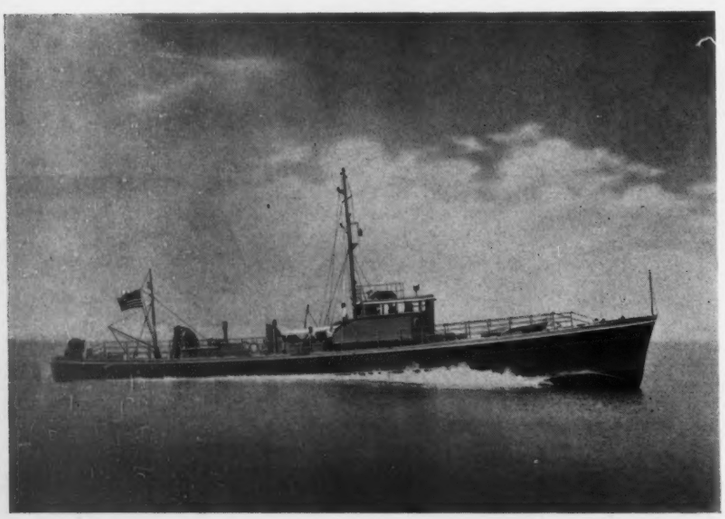
At full throttle, the 110's can get there in a hurry

trusted A. Loring Swasey, a naval architect of broad experience in the designing of able power yachts, with the task of designing a boat primarily for operations against submarines — a boat which could keep the sea in any weather and could be built in great quantity at many yards. The 110-foot subchaser was the result. In all, 444 of them were built.

What these little boats did, and where they went, is already well known. Regarded at first with scepticism by the Navy, which at that time did not sense the value of small craft, and derisively referred to by those serving on larger vessels as "spit kids," they proved themselves beyond expectation. So when, back in 1940, it seemed certain that we would be involved in the present war, the Bureau of Ships began active consideration of a new building program for meeting the submarine menace. Lieut. Commander Swasey, designer of the first 110's, was called back to active service in the Reserve, and given charge of the program. He has since been promoted to the rank of captain.

With the submarine menace vastly greater now than in the last war, due to the greater size, speed and armament of the vessels and their ability to fight on the surface as well as beneath it, those in charge of the program realized that subchasers which were intended to hunt them had to be much more powerful and faster than those of the last war. Great numbers of them were necessary, and speed of production was essential. The program finally decided upon was to include 110-footers of the same length as the older chasers and of wood construction, and larger 173-footers, with a somewhat wider radius of action and built of steel.

Early in 1940, several American naval architects were asked to submit plans on a competitive basis for a wooden subchaser of 110 feet in length. They were to be powered with Diesel motors, instead of gasoline, as in the last war, and to have a specified speed.



Captain A. Loring Swasey's idea of the modern wooden sub-chaser is exemplified by SC 453, launched in the spring of 1941, the first boat to be equipped with a pair of General Motors' "pancake" Diesels. Construction plans were by Sparkman & Stephens

The awards went to Elco and the Luders Marine Construction Company and, in general, the designs followed the type of the former 110's. The first of these was built at the Luders yard, Stamford, in 1940, not from either of the designs that received the awards but rather from a combination embodying specific features of each. She was largely experimental and was powered with two vertical-in-line Diesels of a standard model not especially built for the hull. She did not prove to be fast enough, with the power installed, to meet the Navy requirements, and no more were built at that time.

General Motors Photographic

The stern view of this chaser built by Fisher Boat Works reveals her sturdy sea-keeping qualities

In the meantime, the General Motors Research Laboratories had been quietly working on the development of a new type of high speed Diesel, delivering great power with light weight and occupying but small space. The cylinders were set around a vertical shaft. There were sixteen of these cylinders, cast in blocks of four each. They took up but little space and, because of their looks, were called "pancake" motors. They were something entirely new in Diesel engine design.

Along with the development of these engines, General Motors Research engineers were also working on a variable pitch propeller, with each blade pivoting in the hub and motivated by a rod operating through the main shaft and controlled from the pilot house. This new propeller did away with the need for either reverse gear or reversing the motors by air control or otherwise, greatly simplifying maneuvering and adding to the flexibility. With the elimination of reverse gears and clutch, or of the air reversing equipment of the engine in the old sub-chasers, much weight is saved. And, where so many other items of heavy equipment on a naval

Subchasers of World War I, built of wood and 110 feet in length, have a similar appearance to their sister ships of today. Here a group of veterans is leaving Plymouth, England, homeward bound for the United States

Official U. S. Navy Photo

vessel add to the total weights that must be carried, every saving that can be effected counts. In maneuvering, the pitch of the blades of each propeller is controlled from the pilot house. The operation is remarkably smooth and the shift from full ahead to full astern, or any other operation, is effected without sudden strain on the engines or without the necessity of starting or stopping them.

These motors and propellers not only produced and utilized greater power, giving added speed, but required smaller space for installation, thus giving added room in the same size hull for greater fuel capacity, for carrying additional ammunition and for the various radio and listening devices. All of these savings Captain Swasey availed himself of when he sketched out the first chaser of the new program in the fall of 1940, and the order was placed with the Fisher Boat

Modern subchasers, while admittedly lively in heavy weather, are surprisingly roomy for their size. This is SC 1063, built by Burger

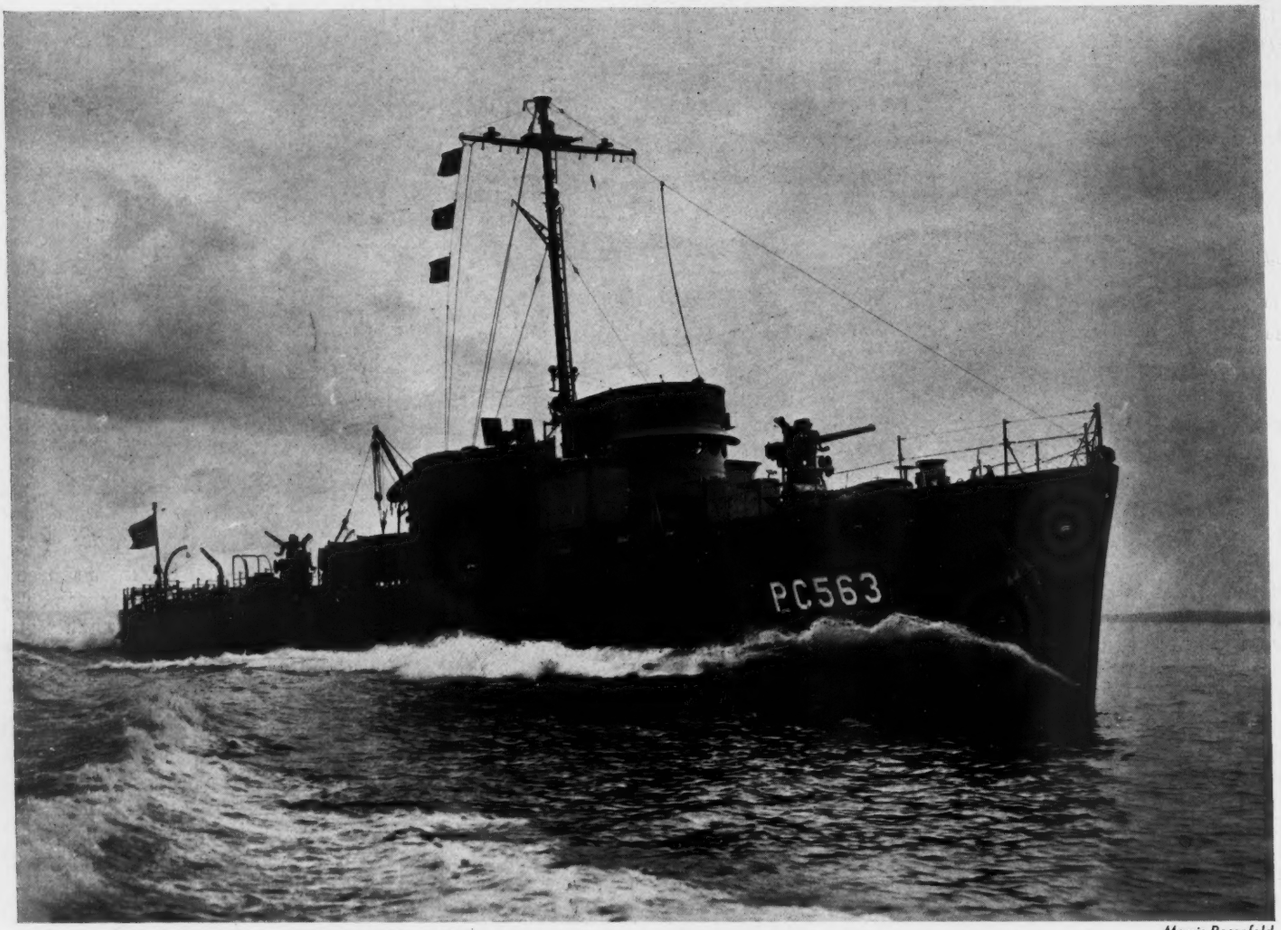
Works for a hull to take a pair of these General Motors experimental motors and propellers. This was the *PC 453*, really the first boat of the new program. The hull bore a marked resemblance to the World War chasers, although the lines were considerably modified to give greater stability and higher speeds. She was 110 feet in length and two-and-a-half feet wider than the World War chasers, with some 30 tons more displacement, and the two "pancake" Diesels developed over 2000 hp. as against 660 total hp. in the three Standard motors of the older boats. This new chaser was capable of several knots more speed than the earlier boats of the last war.

It was considered essential, however, to get still greater stability to carry heavier bomb loads and armament, and the design as finally decided upon added still another foot to the beam. This was possible with only a slight decrease from the speed of the first boat. Sparkman & Stephens, who worked on construction details for the *PC 453*, drew up the detailed plans for the program, which was at once placed in production. Soon some forty yards, in various parts of the country, were humming with activity as the new 110's began to take shape. By the late summer of 1941, chasers began sliding overboard from the ways of yards on the Atlantic, Pacific and Gulf coasts and the Great Lakes, where, for the most part, yachts were formerly built. It was a most ambitious program. Exact figures as to its size are, of course, restricted. It is probable that not so many wooden chasers are being built as in the World War, because the subchaser program now combines both 110's and 173-footers, the latter being later lengthened to 180 feet. It is certain, however, that the output of both classes will well outstrip the 444 that were built the last time we had to chase the German subs back to their bases.

Meanwhile, General Motors was getting into production on its engines and its propeller units. This new development did not really get rolling until last spring, but from May onward the engines were coming from the factory as fast as the boats were splashing overboard, and 110's were going into commission almost daily. Until the "pancakes" were

(Continued on page 64)

SC 218, which saw active service in the Great War, here opens up during her builders' trials. Armament has not yet been installed



Morris Rosenfeld

PC 563, built by Consolidated Shipbuilding Corporation, is trim and businesslike. Designed for split-second action, she and her many sister ships built by yards throughout the country have proven highly efficient

THE 173's — SUBMARINE SLUGGERS

Designed for Offshore Anti-Submarine Patrol, the Steel Sub-chaser is an Increasingly Important Naval Type

By J. H. KEATLEY
Lieutenant Commander, U.S.N.

THE designers of the new 173-foot steel sub-chasers and the men who have gone to sea in them share the same pride in their craft that the discoverer of a superior fighting cock or the breeder of a champion fighting terrier feels in the prowess of these small fierce creatures.* These small ships are the present war's development of the last war's "110-footer." The greatly streamlined and modernized version of the original World War I sub-chaser, a small type originally developed at that time to combat the ravages of the U boat, has been adequately described herein, previously and in this issue, and by virtue of her earlier proud accomplishments, is generally well known as a miniature but important naval type. While numbers of these new steel vessels are in service and some proudly wear scalps on their belts, the PC's are not yet as familiar as are the smaller vessels.

Sub-chasers have a specific function to perform in patrolling our coast lines and defending offshore areas against submarines lurking to take their toll of shipping. As patrol vessels, their function is primarily defensive, and their weapons and equipment are designed to make them effective in discovering, locating accurately, and destroying submarines while under the water, and capable of defending themselves against such ships when surfaced. Their duty, therefore, is different from that of the smaller, dashing PT torpedo boats which have proved themselves such a powerful offensive weapon against much larger ships. This very contrast in type of duty means that the constant cruising of the continuous station keeping in all kinds of weather, and even the breathtaking thrill of actual contact — with the short but fierce engagement which can end with one less submarine, or possibly with one less chaser — go generally without publicity because the boats normally operate singly, and their battles are usually not witnessed by other ships.

Preparation for such service requires the same degree of concentrated application and inspired devotion of the officers and crews, and the same toughness and endurance of ships

** Whereas this particular type of sub-chaser, the PC, is known as the "173-footer," these vessels are built to lengths of 170, 173 and 175 feet. Basically, these three sizes are similar. A new type, the 180-footer, is now being developed.* — Ed.

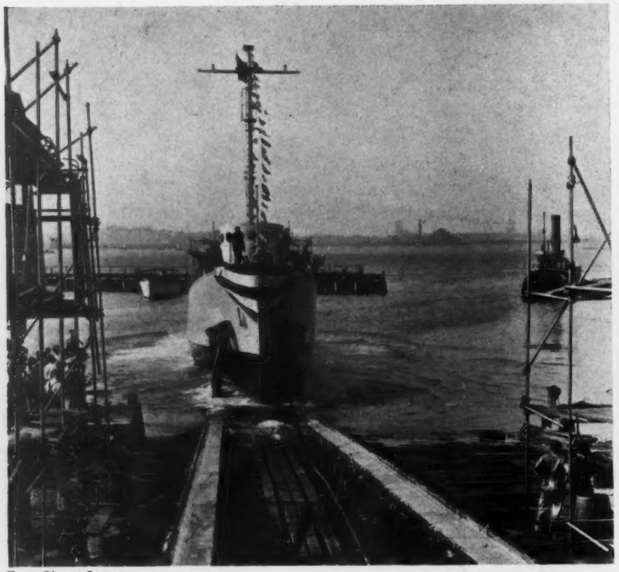
Courtesy "Parade"

TRIAL TRIP

PC 551 goes through her paces off the Atlantic Coast. Her 173 feet are skillfully camouflaged to reduce the visibility of her topsides and superstructure. She is from the Great Lakes yard of Leathem Smith

and equipment, as in the case of the PT's and of the larger fleet vessels. Actual performance of this duty requires something more, because it involves long hours of uneventful straining, constant alertness without apparent reward, and the ability to initiate efficient action at a moment's notice.

Development of naval craft of this type experienced a long holiday, beginning at the close of the last war, with the result that until recently "sub-chasers" have meant those built during that period. The sturdier of those earlier vessels remained in service in the Navy for training purposes, and numbers were used privately for a variety of purposes, undergoing transformations to adapt them for their new jobs. All, however, were quickly recognizable by the familiar "110-footer" hull. When the imminence of the present war became undeniable, building of the pioneers of the present large fleet of wooden chasers was started. Quite naturally, the new plans took the recent improvements in engineering, sound, and ordnance development into account, but retained the basic size and hull form. At the same time, plans for a new type, the steel 173′ vessel, were begun, and the keels of the first two of these vessels were laid in a mid-western yard.

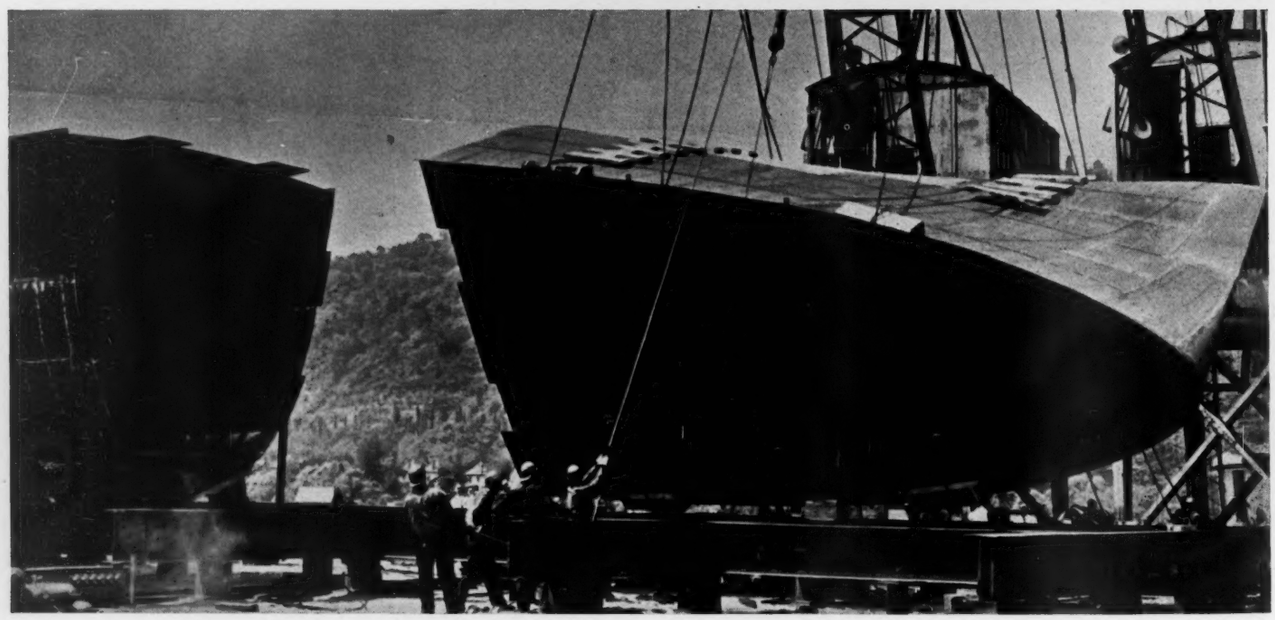


Egan Photo Service

PC 616 slides down the ways at Lawley's, one of the many famous builders of pleasure craft who are now solely engaged in the construction of naval vessels. During the Spanish American War, Lawley built two steel torpedo boats, U.S.S. "Blakeley" and U.S.S. "De Long," for the Navy

Although these PC's are numbered in accordance with naval regulations, these four ships are known to their builders, the Albina Engine and Machine Works, as "Hell for Hitler," "Hell for Goering," "Hell for Hirohito" and "Hell Hammer"

Here a PC bow section, after being assembled upside down at one part of the Dravo Corporation's yard, was brought to the erection site and turned over by two specially rigged cranes



Official U. S. Navy Photograph

Diesel-powered, these speedy craft are at their best when harrying enemy raiders with depth charges. This one came from Lawley's yard

The first two of the class, *PC 451* and *452*, although sister ships as far as hulls were concerned, were originally designed with different power plants. The vessels following these two leaders were modified by the elimination of the forecastle, which made the ships resemble a miniature torpedo boat, and became flush deckers with a single deckhouse structure. All of the present type followed *PC 451* in the adoption of Diesel propulsion. The actual prototype of the present large fleet of steel chasers is *PC 471* (built at the same yard as *PC's 451* and *452*), which has the typical flush deck arrangement and Diesel machinery. As a matter of record, she was completed earlier than *PC 452*.

The adoption of steel as the hull material for these vessels provided many advantages. It immediately made available as sources of supply for these ships many building yards not familiar with wooden construction. In addition, certain new yards developed their present large facilities around contracts for substantial numbers of these vessels. In their construction, many innovations in conventional methods of boatbuilding sprang up. Because of the light plating and framing of these ships, prefabrication of large sections was possible, each section being light enough to be transported from its assembly area to the ways where the entire ship was assembled. In some cases, subsections constituted a large

Ships of the PC Class, known as the "173's," are built in lengths of 170, 173 and 175 feet over all. Basically, these three sizes are similar in all main characteristics. Luders is the builder of this one, PC 556

Seaf Photo Service

percentage of the whole vessel. One builder constructed the hulls upside down, rotating the finished hull so that it would be upright for launching. All of these departures from normal shipyard practice have speeded up building to the point where hull construction can be accomplished in a period of a few weeks.

The propulsion machinery and auxiliary equipment of these ships is one of their most interesting features. The Diesel engine has become an integral factor in the design of the entire class of subchasers, both wood and steel. In the case of the wooden vessels, the Diesel has supplanted the gasoline engines which furnished the propulsive power of the last war boats. With the larger ships, the increased displacement required greater engine power to maintain the minimum speed necessary for this service, which meant that larger Diesel units had to be provided, and in sizes which heretofore had not been frequently used in naval vessels. Many manufacturers developed power plants for this purpose and, with the increasing demand for these engines for other uses as well as the increasing need for them on the part of the Navy, a variety of engine arrangements is to be found in the same class of vessel. In the earlier ships, two units for the twin screws were furnished by General Motors, Hooven-Owens-Rentschler, and Fairbanks Morse. Differences in engine sizes and design necessitated minor differences in engine room arrangements. Some of the later vessels will be furnished combinations of smaller units, with necessary gearing, and modification of arrangements to suit.

Electric power to operate pumps, lights, ventilating sets, and the military sound and ordnance equipment is furnished by Diesel generator sets of sufficient size to maintain all equipment in normal operation, and with reserve power for emergency use. Larger auxiliaries are required since, with Diesel propulsion, auxiliaries, such as pumps, must be electrically driven. Heat for living spaces is provided by a small heating boiler of sufficient capacity for its specific function but not for supplying steam for auxiliary operation. Emergency fresh water is furnished by a small distilling unit.

In addition to the standard equipment for propulsion and the maintenance of ordinary ship functions, there are many installations for ship and fire control dictated by the vessel's special military functions. Gyroscopic equipment, and apparatus for detecting submarines, must be furnished. Devices for the operation of guns, both surface and anti-aircraft, and for releasing depth charges also are installed in each vessel.

In comparing this design with the small 110-foot class, the outstanding difference is in size. The additional sixty odd feet of length carries with it greater beam, and the fact that the vessel is built of light scantling steel plating and structural members in contrast to the planking and heavier timber structural members of the wooden chaser, gives additional internal volume. This feature has inherent advantages in simplifying arrangements throughout the ship, as well as giving the larger vessel a distinct advantage of her greater size in performing the same duties under virtually the same sea conditions. The speeds of the two types are quite similar, although the greater size of the 173-footer favors her where weather becomes the limiting factor.

The larger vessel is naturally fitted with increased armament, has larger engines and auxiliaries, has a greater range, and is less affected by adverse sea conditions. While the size of the largest gun is the same as that being installed in the wooden chasers, the ship's additional length makes it possible to add a second gun aft. Heavier anti-aircraft guns are mounted on these vessels and depth charges can also be carried in greater numbers, with the resultant increased power for fighting submarines below the surface.

(Continued on page 72)

Official U. S. Navy Photographs

A depth charge, fired from a K gun, goes off with a mighty swoosh. Below, the main armament of the PC is her forward 3-inch gun. It is capable of making wreckage out of a submarine's conning tower

For a moment Captain Ferrer got his feet under him. Then the cane knife in the hands of the big Negro rose and fell

MUTINY IN THE "AMISTAD"

Part II — The Slaves Rise and Take the Schooner

By MARGARET WALLACE

ON JULY 1, 1839, the slave schooner *Amistad* was four days out of Havana. Captain Ferrer estimated that they might be a week or more yet making Guanaja, about 300 miles to the east. The little ship rode low in the water. Much of her normal cargo space had been given over to the forty-nine slaves herded below, and the decks were encumbered with bales of cloth and bundles of oak barrel staves. They had been beating in an east and southeasterly direction against light head winds. The weather continued hot, with intermittent rain.

The first four days of the voyage had been pleasant and without incident. What happened on that nightmare evening of the fourth day was not fully clear for many months thereafter. Everyone who survived to tell the story told it in voluble detail. Court stenographers and newspaper reporters spread it to every corner of the country, which was agog by that time for details of the bloody mutiny and the strange voyage which followed. An imposing array of the best legal talent, including John Quincy Adams, was engaged to argue the merits of the case.

The two Spanish slave owners told their stories to the officers of the U. S. Coast Survey brig *Washington* who had effected their rescue. Don José Ruiz spoke in fluent English, for he had been educated in Connecticut. Don Pedro Montez, an old man and badly shaken by his harrowing adventure, sobbed out Spanish prayers of gratitude to the Virgin which Lieutenant Richard W. Meade translated for the record.

The slaves, who were held in jail at New Haven on charges of murder and piracy, gave their account of the mutiny. Banna was the only black who knew any English, but his vocabulary had proved unequal to the demands on it. A resourceful linguist from Yale, Professor J. W. Gibbs of the Divinity School, questioned the negroes with great patience and succeeded in obtaining their Mendi words for the numerals from one to ten.

Working his way along the New York waterfront and interviewing colored sailors, Professor Gibbs found a young man aboard a British naval vessel who recognized the Mendi syllables. The dusky young seaman, whose name had been

Anglicized as Covey, was granted a leave of absence and went back with Professor Gibbs to act as interpreter. The slaves, when they could make themselves understood, were eager to talk. Their version of the mutiny, with a good deal of personal biography, was set down for introduction into the court evidence.

The most coherent, graphic, and detailed story of the lot came from an unexpected source. The little mulatto cabin boy Antonio, nine years old and lively as a flea, had belonged to Captain Ferrer. Little that went on aboard the *Amistad* had escaped him. Besides knowing Spanish, he had at the beginning of the voyage a sufficient command of African dialects to make himself understood by the slaves. By the end of the voyage he was able to give a reporter at New London a fluent translation of Cinque's oratorical Mendi advice to his followers.

He was awake at the first sound of the revolt, before the white passengers appeared on deck, and, though frightened out of his young wits by fear of imminent death at the hands of the mutineers, he was able later to render in Spanish a vivid description of that night's events.

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About six in the afternoon, when the slaves were brought up on deck for their second meal of the day, Captain Ferrer took the wheel himself. The seamen, Manuel and Jacinto, were set to guard the slaves. Montez and Ruiz, the owners of the slaves, were below in the after cabin finishing their dinner. The loud quarreling and complaining of the blacks, the agonized howls of a slave under the lash, were commonplace after four days. The whip was used freely aboard the *Amistad*. Captain Ferrer left minor questions of discipline to the heavy-handed Manuel, who seemed to enjoy settling them.

Don Pedro Montez — who was, apparently, something of a nuisance — came up and joined the skipper at the wheel. Don José Ruiz, brandy glass in hand, installed himself comfortably on a bale of cotton goods and gave himself up to leisurely meditation and digestion. He was almost as tired as Ferrer of the old man's display of what probably had been, even in his best days, indifferent seamanship.

Still, he really knew nothing about it. Perhaps Montez had been a good captain. Perhaps he was only tedious and officious now because he was old and not well and felt himself useless. Don José Ruiz was an attractive and fortunate young man, far too genuinely good natured to offend anyone needlessly. He had put in several patient afternoons already listening to Montez, or pretending to listen.

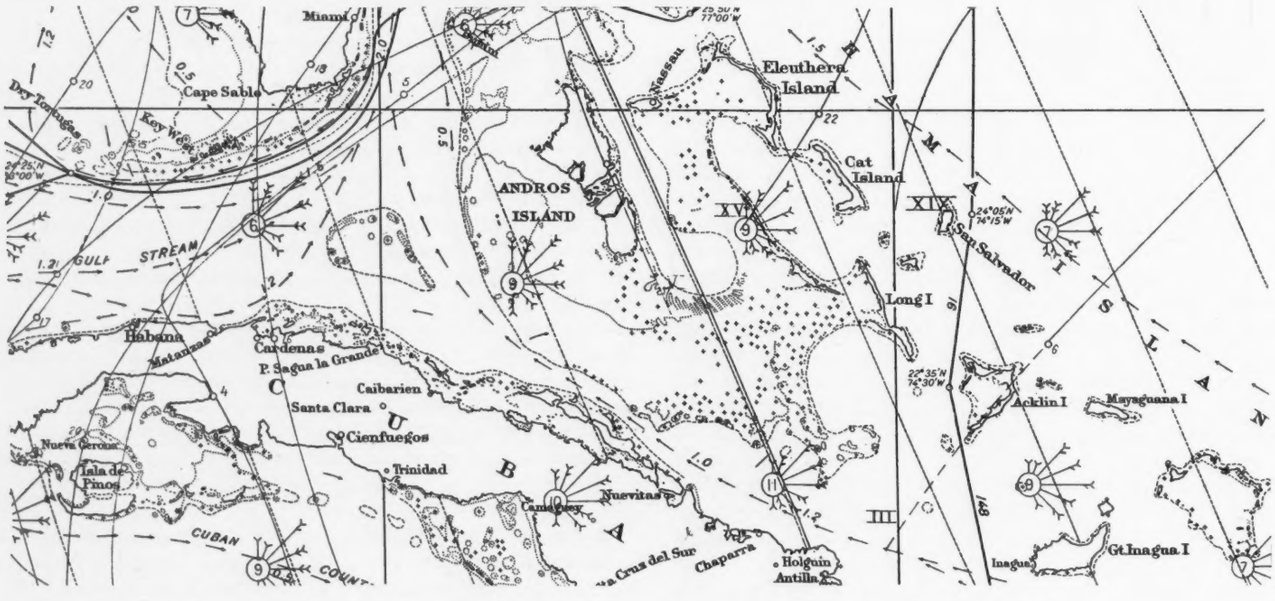
Nevertheless, when the old man came forward to join him in the lee of the deck cargo, Ruiz made his excuses and escaped below, where he turned in and was soon fast asleep. Montez, disappointed in his hope of an evening of reminiscence, finished his cigar deliberately, said good-night at some length to Captain Ferrer, and followed. The schooner was settling down for the night. Even the slaves were quieter than usual. There were no sounds from the hold of wailing song or high-pitched altercation.

It was now quite dark, but the rain had stopped again. Celestino, the mulatto cook, was snoring peacefully on his mat spread on deck forward of the mainmast. The air, in spite of the rain, was still uncomfortably sultry and oppressive. Captain Ferrer, thinking of his stifling cabin, called the cabin boy and ordered his own mattress brought up and placed on deck. Then he set his course for the night and turned the wheel over to Jacinto.

Young Antonio, free at last to take himself off, bedded down informally among the bales of cotton goods. It was an hour or two later, perhaps longer, when he started awake at some unfamiliar sound. At first he was at a loss to identify it. The schooner was steady on her course, the rigging creaking gently, the water lapping at her sides.

Then he heard it again, a flurry of stealthy movement. His sharp young ears caught the slap of bare feet on the deck planking. The clank of metal sounded unexpectedly close at hand. The thought occurred to him at once that the slaves had broken loose and stolen up from below. It was an idea never far out of mind aboard a slave ship where the chained Negroes, chosen for their size and vigor, outnumbered their captors ten to one.

He sat bolt upright at the sound of a muffled blow, and another. There was a moon, but the sky was streaked with dark clouds. When the boy's eyes had accustomed themselves to the darkness, he made out a huddle of figures around the spot where the cook's mattress lay on the deck. There was no groan or outcry. Celestino, whose grinning remark that they would be eaten at Guanaja had stirred the slaves to murderous frenzy, died without knowing what struck him.



The "Amistad," out of Havana, worked down the old Bahama Channel, bound for Guanaja, 300 miles to the east

Death of Capt. Ferrer, the Captain of the Amistad, July, 1839.

Don Jose Ruiz and Don Pedro Montez, of the Island of Cuba, having purchased fifty-three slaves at Havana, recently imported from Africa, put them on board the Amistad, Capt. Ferrer, in order to transport them to Principe, another port on the Island of Cuba. After being out from Havana about four days, the African captives on board, in order to obtain their freedom, and return to Africa, armed themselves with cane knives, and rose upon the Captain and crew of the vessel. Capt. Ferrer and the cook of the vessel were killed; two of the crew escaped; Ruiz and Montez were made prisoners.

A contemporary woodcut from John W. Barber's "History of the 'Amistad' Captives"

While Antonio stared, his eyes wide with curiosity, one of the dark figures detached itself from the group and padded aft along the deck. He was able to identify Cinque by his superior size and compact athletic build. Three other Negroes followed their leader. They all carried cane knives, two-foot blades of heavy razor-sharp steel flaring wickedly toward the end.

Instinct brought Antonio to his feet at the Captain's shout.

"'Tonio! Boy! The blacks — fetch some bread —"

Prudence kept the boy where he was, shrinking back into the shadow of the cargo bales. He knew that the cook was already dead. The slaves, half-starved for days though they had been, would not be turned from their purpose by bread now. They had tasted blood.

For a moment Captain Ferrer got his feet under him. Antonio saw his bulk outlined against the sky, one arm raised as if to ward off a blow. Then the arm was gone and the sky behind it was empty. The cane knife in the hands of the big Negro rose and fell again, went on hacking senselessly at the huddled shape that had been the master of the *Amistad*.

Bedlam had broken loose forward. There was a great shouting and running along the decks, the babble of African voices rose to a clamor. The cry of "Murder!" was raised in Manuel's voice. Antonio heard through the din the rattle of davits and the clatter of oars as the panic-stricken seamen tried to lower one of the boats.

At the after companionway the head and shoulders of a man appeared. Antonio knew by the ruffled gray hair that it was Montez.

The big Negro who had struck down Captain Ferrer turned with cat-like quickness and aimed a sweeping blow of his cane knife at the old man. Montez, who had caught up an oar, tried to defend himself. The oar was knocked from his hands. The last Antonio saw of him he was scuttling forward along the deck, clutching at his shoulder and whimpering with fright. The Negro did not follow. Someone was clutching him by the arm and trying to plead with him. Antonio thought afterward that it was the younger passenger, Don José Ruiz, the one the slaves — almost with affection — called Pipi.

That was all the cabin boy was able to observe for a while. He was seized by the scruff of the neck and dragged out from the safe obscurity of the deck load. The youngster twisted like an eel in the hard grip of the mutineer. He tried to get a foothold on the deck, but his bare feet slipped in something that felt like blood. He could not break the grip that held him and began to yell.

Even in his panic, with his eyes squeezed tight shut so that he could not see the cane knife when it came, he heard the voice of Don José — and it was still the voice of a slave owner accustomed to instant and unquestioning obedience from his blacks — pleading for his life, too.

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For the rest of that dark and rainy night the schooner *Amistad* was left to sail herself. She wallowed about helplessly in the Old Bahama Channel with as strange a crew as ever had a ship in charge. Within half an hour of the first outbreak, every one of the forty-nine slaves in the hold was freed of his manacles and had swarmed on deck, drunk with liberty and thirsting for loot.

They had all armed themselves, most with cane knives, some with cutlasses or sticks. Cinque had possessed himself of the two pistols in the captain's cabin and thrust them into his belt. Around his right wrist he looped the heavy leather lash which Manuel had used to keep the quarrelsome slaves in subjection.

Manuel was gone now. And so was Jacinto, who had abandoned the wheel at the first glint of a cane knife. The two seamen had succeeded in launching one of the boats and had rowed away in the darkness. The hacked bodies of Captain Ferrer and Celestino were stretched on the deck where the cane knife had laid them.

But Cinque held the pistols and the lash. He had started the mutiny — it would not be correct to say that he had planned it — and killed the captain and the cook with his own hands. He showed himself, then and later, perfectly aware of his responsibility. Even before the first madness of killing had died in him, he had realized that the situation, his more than any, was desperate. There had to be a leader aboard the *Amistad* if they were ever to see Africa again. The position belonged rightfully to him and he intended to maintain it with any force necessary.

The Negroes were busy breaking into the cargo, ransacking the trunks of the passengers in the cabin. Boxes of foodstuffs had been broken open and the half-starved blacks were gorging themselves on ship's biscuit and double handfuls of raisins. Some of them were already adorned with incongruous finery, cambric shirts and satin sashes and floppy white hats. A cask of rum had been brought on deck

(Continued on page 74)

CONSIDER THE GALLEY SLAVE

He Must Have Enough Room in which to Work and Stowage Space for All His Gear

By H. L. "SKIPPER" SMITH

Whatever type of stove you select, get the largest you can possibly install

LIFE is a series of contradictions. Last winter I was a guest at the annual dinner of a yacht club, and was invited to speak on the topic of "Yacht Seamanship." The Commodore, in introducing me, said: "Our guest (mentioning my name) is here to talk on Seamanship. While I don't know much about his ability as a seaman, I can tell you that he is one of the best cooks on Long Island Sound." While it is a trifle humiliating, after forty years striving for a reputation as a seaman, to find that most people who sail with me recommend me to their friends merely as a pretty good cook, there are a few compensations. I confess I am beginning to take just a little pride in the fact that in forty years I have never poisoned anybody and, to the best of my knowledge, have never seen anybody go hungry or dry on any of my ships.

Let us then consider yacht cooking — cooking while coasting. For real offshore work, cooking must be conducted somewhat differently and is outside the scope of this article. First, the galley. I am not going to discuss it at length, except to say that, while a galley aft is undoubtedly easier for the cook, my experience inclines me to the belief that keeping the galley forward is probably better for all hands. And, if a coal stove is used, the forward location is much better for ventilating the ship and keeping the cabin dry in bad weather.

No cook should be expected to be a magician; if you want a well fed crew, you will probably need more galley space than is provided for in the average small cruiser, especially in so far as the stove is concerned. Whatever type of stove you select, get the largest you can possibly install. Too many yachters make the mistake of working on the smallest stove they can buy in a rather foolish effort to save room in the galley. Your stove must have a really high rail, not less than three inches, if you are going to do much cooking while under way. Furthermore, unless you want to serve all your meals from a frying pan or stewpot, you must have an oven. There are so-called "portable" or "camping" ovens which are capable of doing good work on a gasoline or kerosene stove, and which make acceptable substitutes for the coal stove's oven. Their only disadvantages are that they are hard to stow and, as there is no galvanizing or enamel to protect them against extreme heat, they rust quickly and have comparatively short lives. If you use one, be sure to provide some arrangement by which it may be rigidly wired or clamped to the top of the stove when in use, otherwise disaster may result.

If you lack these accommodations — look out!

I prefer a coal stove and, although it is undoubtedly dirty, here and now let me caution you against too high a standard of cleanliness in the galley. Good cooking cannot be accomplished without at least a minimum of dirt and disorder; whenever I visit another ship and am shown a perfectly immaculate galley, I always wonder just how the crew eat — unless there is a woman aboard to do the cooking. The coal stove is no hotter than any other while in operation — perhaps not quite as hot — as much of the surplus heat passes out through the Charlie Noble. When not in use, the fire may be readily banked. Its only real objection, on small ships, is the space that it (and its fuel) occupies.

The first rule for ease of operation in the galley is to have a sufficient supply of the proper utensils. If your galley equipment is confined to a tea kettle and a frying pan, you can't attempt much in the way of variety nor can you be surprised if, after two or three days, your crew develops symptoms of bad temper (due to a slight indigestion). Throw away all the nice little round or semi-round base saucepans you may have aboard — or use them for holding paint or bailing the tender — and provide not less than four medium to large square base stewpots, with lids and small side handles. Have them of assorted sizes, so that they may be stowed away, nested together inside the largest pot.

Measure your portions

Whatever sizes you get, have them large enough, as at sea or even in harbor it is injudicious to have a pot more than half filled, even for your biggest job of cookery. To cook aboard ship in a pot that is brimfull is just looking for trouble.

It is unreasonable to expect much in the way of culinary skill unless the cook is provided with adequate, handy, space for the stowage of provisions. This stowage space should always be in the galley and not distributed in various parts of the ship. Ample shelves and wide racks are essential fittings in every galley. Once they are provided, the cook should be left to his own devices as regards stowage, and there are very few ship's cooks who do not develop idiosyncrasies in this direction. Like Sherlock Holmes, who kept his tobacco in the toe of a Persian slipper, almost all cooks have one special ingredient or condiment which must be kept in a particular place or they are lost. With me, it is salt and pepper. Unless they are parked in a special holder close to the stove, I go on strike and no cooking is attempted until they are found and reëstablished in the place in which, in my opinion, they belong. Also, I like to keep flour, cereals, etc., in cans with tightly fitting tops rather than in their original packages.

Somewhat paradoxically, the next important piece of cooking equipment is the cabin table. Poor cabin tables spoil more good meals (and other things) than anything else aboard. The table should be large enough to afford reasonable room for the entire ship's company, and must be fixed in an absolutely permanent position. While it may be necessary to provide for drop leaves to economize floor space, the table should be bolted to the cabin floor (or preferably through the floor and to the floor timbers) so that it is capable of sustaining any lateral stress thrown against it in a seaway. Have you ever tried to get on deck quickly during a hard knock-down, with possibly a green crew on deck, out of a cabin which had no center table? Well, I have, and the experience was unpleasant. Many people object to a table permanently fastened to the floor, on account of the space it occupies. I fail to see why. After all, you don't expect dancing space in a small yacht's cabin, and you don't need much more than foot room on the cabin floor. Unless it is absolutely impossible, one end of the table should be supported by a stanchion carried all the way up to the deck or housetop and well fastened. Not only does such a stanchion give the best fastening place for the cabin lamp, but it is invaluable as a handhold in a seaway. The table should be fitted with removable fiddles at sides and ends, with a double fiddle running fore and aft down the middle for glasses, etc. On a table fastened and fitted thus, meals may be eaten in comparative comfort and safety in any ordinary sea.

Many runs are shortened unnecessarily by the demands of the cook for smooth water and ideal conditions before beginning the preparation of a meal. This is doubly unfortunate because it not only shortens the passage but is apt to be rather boring to the crew if the ship is swinging at anchor during the whole time the meal is in preparation, especially if they are kept waiting until a ridiculously late hour. In ordinary weather, such a delay is unnecessary. While it is sometimes allowable to make harbor early enough to allow for the preparation of an elaborate meal at anchor, there is normally no excuse for not starting the evening meal while under way — and eating it under way if necessary. But I much prefer to dine at anchor, so that all hands may gather around the cabin table.

The person who, like myself, has to be both cook and shipmaster, must do a little planning in advance if he wishes to have dinner ready by the time the ship arrives at her destination. Have the fire running well before you start anything, and have the roast, stew, or whatever it is, in the oven or on the stove in good season. Here is where an oven, deep pots and a high rail come in. If you have them, and ample arrangement for chocking pots, kettles, etc., on the stove top, you may start cooking in the most savage thrash to windward. If you lack these accommodations, look out!

As to the cooking itself, I am not going to give directions. There are numerous good cookbooks, from Alex Moffat's down to that issued by the Metropolitan Life Insurance Company (the latter may be obtained for the asking). They are all written by better hands than mine. What every green cook should remember is that cooking, like sailing, has to be learned, and the more you like it the quicker you will learn it. Second, while learning, don't try anything that is not completely described in the cookbook, any more than you would try sailing strange waters without a chart. Third and most important, while learning, follow directions implicitly and *measure your portions.* If the formula calls for half a cup of flour or a teaspoonful of salt, it means exactly what it says and not your guess as to what might be "about" that quantity. Also, if the directions call for forty-five minutes cooking over a moderate fire, don't try to hurry things by cooking twenty to twenty-five minutes over a hot one. It is only after you have become reasonably competent that you may venture a few additions and subtractions of your own — and even then it is well to try the results on the dog (or yourself) before placing them before the crew.

There are numerous steps in cooking, all calling for the consumption of a considerable amount of beer, as it is apt to be warm in the galley. First, start early enough, take plenty of time, and don't make a move toward preparing or mixing until you have your portions accurately measured and until you are quite sure of what you are doing and what has still to be done. Second, don't try too many varieties at first; two or three dishes which you have really learned to cook will satisfy a crew much better for the first week than a succession of doubtful and half-baked experiments. Also, when making port nearly every day, don't adopt the lazy man's trick of serving the major portion of your meals from canned stuff. When cruising along the coast, I want a minimum of canned food. I am aware that there are excellent varieties of canned food on the market (sic), so that it is entirely possible to serve quite an elaborate meal from cans, but nobody will ever convince me that canned meats, vegetables and fruit are equal in flavor or nour-

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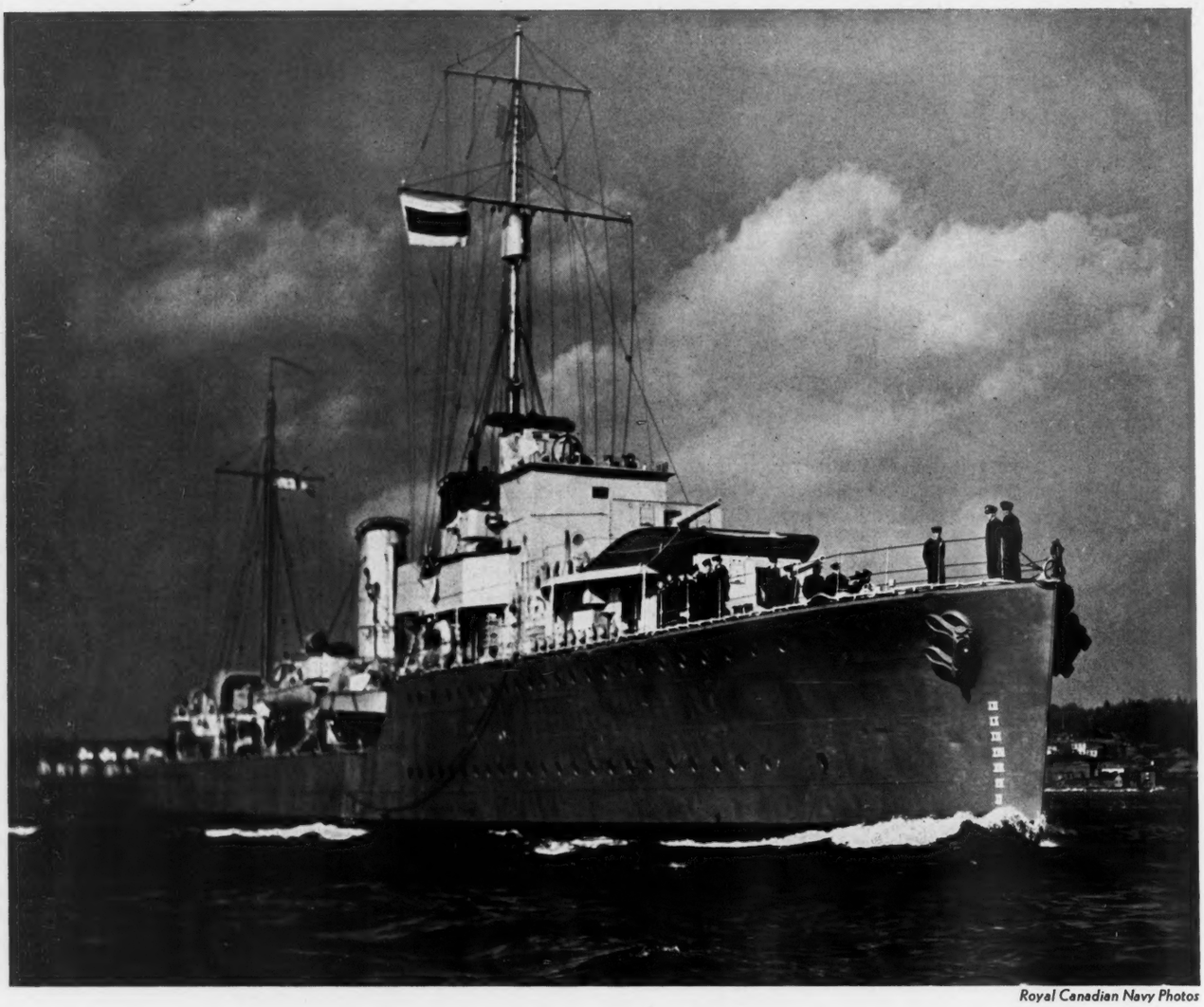
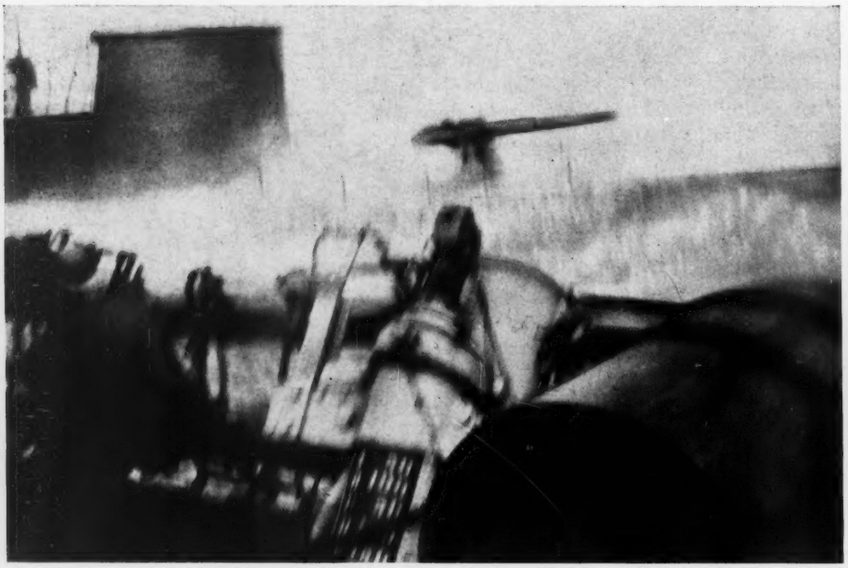
All calling for the consumption of a considerable amount of beer



Royal Canadian Navy Photos

H.M.C.S. "Assiniboine," one of the crack destroyers of the Canadian Navy, victor in a recent battle with a Nazi submarine. Below, left, the U-boat vainly tries to escape from the destroyer, notice the depth charge and the thrower in the foreground. Several "ash cans" completed the enemy's destruction. Right, her hull and conning tower riddled by shell, the sub goes down after being rammed



DECEMBER, 1942

DEATH OF A RAIDER

In One of the Most Dramatic Naval Actions of the War H.M.C.S. "Assiniboine" Accounts for Another Sub

Lieutenant Commander J. Hamilton Stubbs, R.C.N., on the riddled bridge of the "Assiniboine," where he stood throughout the action. Below, the U-boat on the surface, as the destroyer dashes toward her

NOT SO long ago, H.M.C.S. *Assiniboine*, one of Canada's crack new destroyers, slid into an Atlantic seaport looking somewhat the worse for wear. Her bridge and forward turret showed numerous shell holes, her stem was buckled and minus any semblance of paint, while the starboard side of her superstructure was blackened and blistered from what must have been a bad fire. Despite these unmistakable signs of combat damage, the ship had an almost jaunty air about her. Her crew looked positively jubilant. The news was soon out — and even the censors seemed pleased. *Assiniboine* had made a kill, and the crew of her victim, a German U-boat, was securely locked up below.

The details of the action are given in the words of *Assiniboine's* commanding officer, Lieut. Commander J. H. Stubbs, R.C.N. "*Assiniboine* had been sent off from the convoy to pick up six stragglers," he related. "They were forty or fifty miles away and as we got to them we saw one go down, torpedoed. We searched the area but found no trace of the attacker."

Nothing happened that day, but the following morning an object was sighted and it proved to be a sub. The conning tower was visible at six miles' range, so the *Assiniboine* altered course and steamed in pursuit, opening fire immediately with the forward 4.7 gun.

"He dived fairly close," said the commander, "so we dropped two depth charge patterns over the spot. Then we searched but saw nothing."

About 5:30 p.m., the Yeoman of Signals sighted another conning tower at 1,000 yards' range.

"We dashed off again in pursuit and as we closed in he dived," the commanding officer continued. "Then the fog shut down. We did a turn to port and came out of the fog and there he was, at half-mile range. We went for him at full speed with the intention of ramming, but lost him again in a fog bank. I ran *Assiniboine* on to what I thought was the spot where I had last seen him, but I had evidently turned too soon. So we altered course a little and went ahead. Then we saw him again — right on the surface and almost a stone's throw away.

"We closed him at 200 yards and the submarine started an evading action. We kept moving in and just missed ramming his stern. We were so close that we couldn't depress our guns enough to reach him, but we were firing anyway. Then we drew parallel with him and the guns started to boom in earnest on both sides. From my perch on the bridge I could see the German commander plainly in the conning tower but, a short time later, he was killed by a shell from one of our 4.7's. The Nazis concentrated their fire on our bridge and the first few shots started a fire on the starboard side. This interfered with our fire control and so we had to resort to 'quarter firing,' each gun operating independently of the others.

"With all our guns blazing, our .50 caliber gunners kept spraying the submarine's decks. I saw one of our 4.7's hit the conning tower again and at this time the U-boat decided to take a gamble and dive. We then started a crisscross action. We crossed his stern several times but I think we were too close for him to use his torpedo tubes. (Some members of *Assiniboine's* crew reported having seen the wake of a torpedo as it passed the destroyer's stern early in the action.) He was very close to us and we knew we had him taped."

While Lieutenant-Commander Stubbs was maneuvering for an opportunity to ram, an able seaman found his opportunity. He saw the submarine looming up and got her on the

sights of his 4.7 inch gun. The shell went into the U-boat's bows. She continued, however, to fight, until *Assiniboine* was in position to ram.

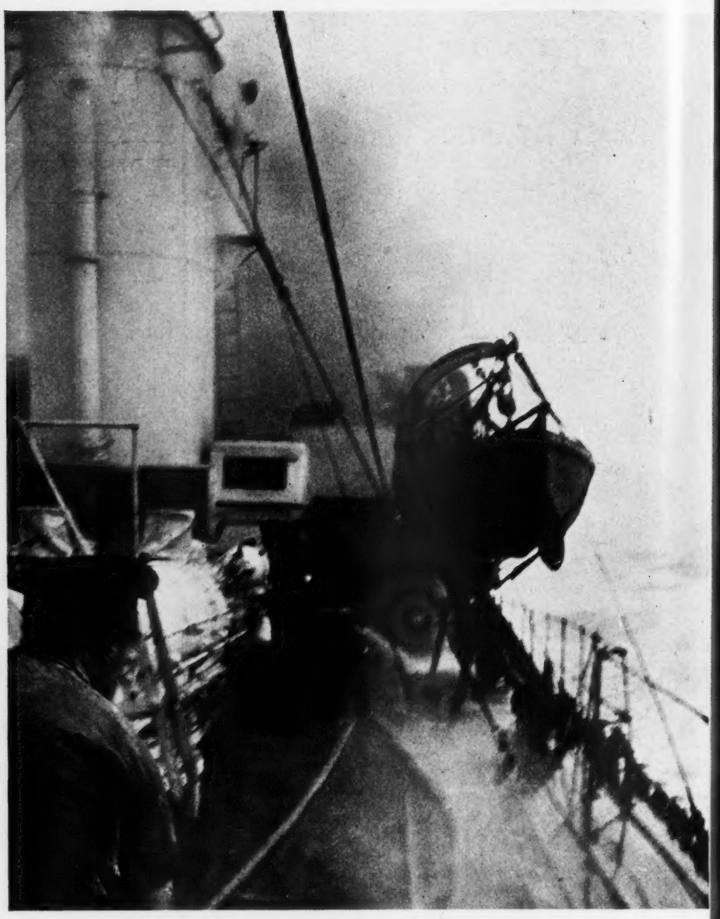
"We slapped right into him again and then, for good measure, let go depth charges from our port and starboard throwers which exploded under him," the captain continued. (According to the seamen who manned the throwers, one of the charges bounced onto the deck of the submarine, then rolled off and exploded at the depth set. This gives some indication of how close the U-boat was to the destroyer during the action.)

"By this time the Germans had had enough and had lined themselves along the deck with their hands held high. (This was no Nazi salute.) They were all wearing their escape apparatus. Then, as the Nazis plunged into the sea, the submarine went up by the stern, shook for a second and took the last plunge. All the survivors were rescued."

Lieutenant-Commander Stubbs paid tribute to his ship's company. "They cheered so hard every time *Assiniboine* scored a hit that they must have struck fear into the hearts of the Nazis. The coxswain staged a wonderful show. The shells were whining all around him and the bridge structure was ablaze, but he carried out every command as if it were a normal Sunday morning. The fire party had extraordinary success in extinguishing the fire on the bridge. The gunners did a remarkable job. I cannot speak too highly of the men who served in that action."

"We threw everything at them but the potato masher. The cook was busy on the starboard depth charge thrower and had no time to look for it." That is how Able Seaman Roy Leeson described *Assiniboine's* set-to while the submarine was on the surface.

As the ratings in *Assiniboine* sat around the mess decks recalling incidents of the sea fight, the name of their commanding officer was on everybody's lips. "He was marvellous," said one able seaman. "He stood there on the bridge, as calm as if he were right in this port. The gunfire was spraying all around him. Why he wasn't hit is a miracle. It was certainly an uncomfortable spot, but he didn't mind. He had his plan worked out and — well, you know what happened to the U-boat."



A spectacular blaze was started on the starboard side by shell from the U-boat not long after the action was opened. The fire was soon extinguished. Below, a load of Nazi prisoners is brought alongside

There is the story of Ordinary Seaman Stanley Gallant, who was operating one of the starboard .50 caliber machine guns. He reached for some fresh ammunition and was hit on the right forearm by an enemy machine gun bullet. He looked at the blood streaming from his arm, turned to his mate and said, casually: "Hey, Bill, they got my drinking arm." Later, when the prisoners were brought on board, one of them walked over to Gallant and said in broken English: "I the fellow who shoot you. I see you at the gun." Gallant had an answer for that, too, better left unprinted.

Then there was the crew of "A" gun. Of the seven men, one, Kenneth Watson, ordinary seaman, the youngest man on board, was killed. He died with a shell in his arms, hit by an Oerlikon shell. Three others were wounded, but the gun's crew continued pounding the U-boat with only three left to man the gun.

Leading Seaman Howard Oliver was hit five times while standing on the open deck, issuing orders to his gunners. But he stayed at his post until the U-boat gave her last gasp. Warrant Gunner N. L. Wilkinson, R.C.N., was wounded in the ankle and back as he directed the gunfire from the open deck after the fire control had been put out of commission. He also found time to supervise the fire party battling the blaze on the bridge during the opening minutes of the fight.

George Kiddle, R.N., a veteran of Norway, was on board

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DECEMBER, 1942

ICE BOATS

Part II — Construction and Details of Rig and Boat

By RAYMOND A. RUGE

"Charette II," twice open champion of the E.I.Y.A. The boom rotates with swiveling gooseneck, and the mast rotates on ball bearing step. Note the lead of main sheet, automobile steering gear, aluminum channel on mast for belaying halliard, and fullness of the mainsail along the luff

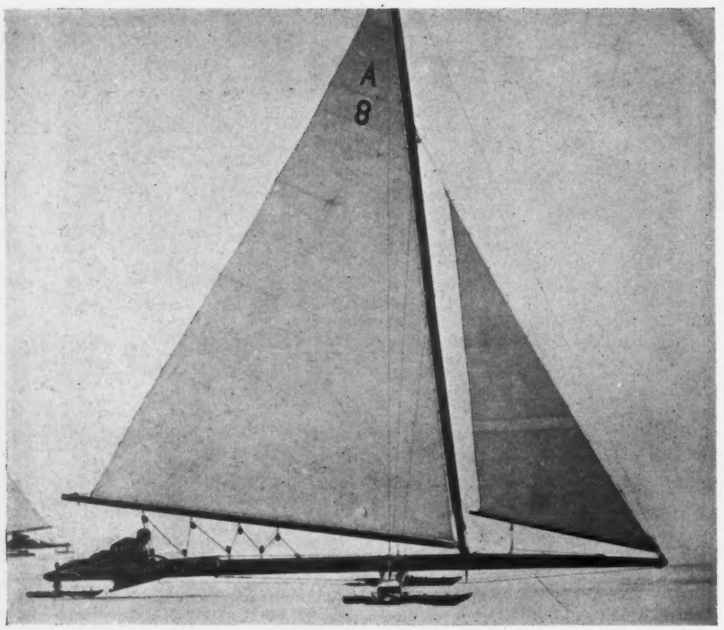
ACCEPTING the cat rig, how shall we design it and how build it? First and foremost, the proper design and stepping of the mast is of such importance in the performance of the rig that it deserves thorough investigation. The mast is the *leading edge* of our power plant, that is, it is the first portion of the rig to encounter the wind, and it *deflects* the air flow — either favorably or unfavorably, depending on its shape and on the manner in which it is mounted on the hull.

The first impulse of the designer intent upon improving the old-fashioned round mast, or its immediate successor, the rectangular hollow spar, was to "streamline" the cross-section, that is, give it a shape of more or less elongated oval form, full and round forward, and tapering to a narrow trailing edge aft. This is an improvement in design and a step in the right direction — but the fact is that a streamlined mast is *inferior* to the original round mast of fifty years ago unless we "go the whole hog" and mount it so that it is free to rotate.

But why rotate? For two reasons, both important. First, streamlining is basically the process of giving a body a profile or cross-section that offers the least possible resistance to motion through a fluid medium, either air or water. It seems obvious to note that the motion is assumed to be along the long axis of the streamlined body, and yet it is just this that designers of the first streamlined mast forgot. They mounted the spar on a fixed step, with the long axis of its cross-section parallel to the backbone of the boat. Yet the air flow when sailing is always *across* the backbone, at an angle of 25° to 45°. It is clear that, with a fixed mast step, the air flow is also across the streamlining and not with it. The "burble" or eddy just behind such a mast is terrific, and far greater and more harmful to the pull of the mainsail than that behind the old round mast — especially a really old one with mast hoops! (Mast hoops allowed the sail to slip around the spar to a position directly to leeward which gave a better air flow than a sail held on dead center by a fixed track.) Thus we see that streamlining the mast was a step in the right direction, but one that was more than nullified by failure to follow through with the second step, pivoting the entire spar so that it was free to align itself with the air flow, no matter from what angle that might be.

The second, and even more important, reason for pivoting the mast becomes apparent when we study the vital part this plays in the development of power in its rôle of leading edge of the rig. Practice has confirmed the theory that a sail close-hauled (as ice boat sails always are) acts exactly as does a wing. Any plane designer will tell you that the leading edge of an airfoil is the part that deflects the air flow upward and over the arched top surface, and that the direction and degree of this deflection are vitally concerned with the lifting power of the wing. That a slight change in the shape of the leading edge can seriously alter the power of the wing is attested by the results of icing-up of airplane wings, the cause of many tragic crack-ups. These planes are not forced down by the weight of the ice formed; they fall simply because their wings have no lift! The accompanying sketch, though not scientifically accurate in every curve, makes clear the principle involved, and shows how the little bulge of ice can ruin the effectiveness of the finest airfoil. Carrying the principle back to our mast, we see the importance of the rotating step and understand how vital to power is the proper *amount* of rotation.

Having decided to streamline and pivot our mast, there is one more item of design to be considered before starting construction. This is the manner of attaching the sail to the mast. For once, the cheapest method seems to be the best. The "Swedish track," or slotted mast, involves no extra or metal parts of any kind, and has several other advantages which make it the best solution. First, the sail is gripped throughout its entire height by the tunnel on the mast, which insures a smooth luff without setting up the main halliard to the breaking-point. Second, this grip is accompanied by considerable friction, tending to keep the sail up there once it is hoisted, hence easing the stress on the halliard. Third, the tunnel spar offers no problem of coördinating the inner ends of the batten pockets with the slides at the mast. As a clinching argument, the tunnel spar lends itself beautifully



An old type stern-steerer, with all her crew weight aft

to streamlining, and to serving as the leading edge of an airfoil.

Solid or hollow? Again a compromise, between lightness and stiffness on one hand and ease of construction, added strength and resilience on the other. Granted that the solid spar weighs a bit more, it is far easier to build if you are going to make your own, and it is far stronger in case your boat is a bow-steerer, and capsizes some windy day. A mast that will stay up there and prop up the boat after the spill may not only save boat, sail and rigging, but may also save you. As in all questions of weight, the ice boat does not pay anything like the penalty for added weight that the sail boat or the airplane does. The sail boat sinks deeper into the water for every pound added; hence a penalty in added resistance. The airplane must use a higher lift airfoil to carry added weight; hence a penalty in speed and fuel consumption. The ice boat, on the contrary, unless sailing in deep slush, adds practically nothing to resistance or to required draft of sail by the addition of a few pounds of weight. Where the gain is on the side of safety, there should be no question, particularly now that heavier-than-average boats have proved themselves faster in competition.

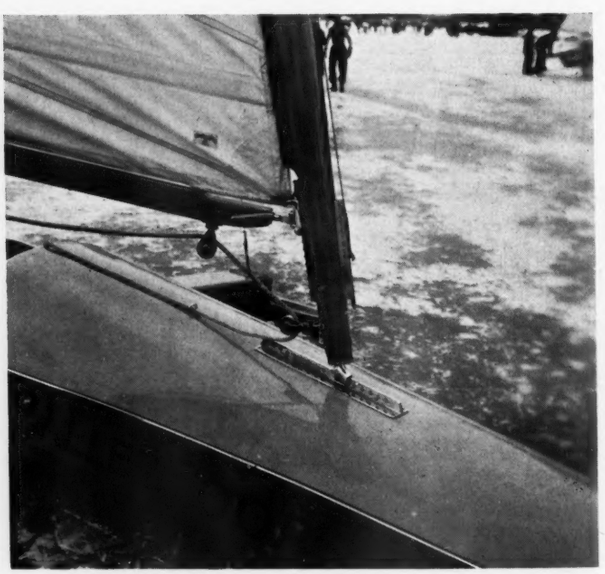
Sitka spruce is, by all odds, the best material for spars. Glue should be the best waterproof casein (aircraft type) or phenolic resin. Be sure to mix these glues in accordance with the manufacturer's instructions, regardless of "expert" advice by local carpenters, unless you want the pleasure of watching — and, perhaps, feeling — your handiwork disintegrate before your eyes. And use plenty of clamps! This means *plenty* — so many that it seems ridiculous.

Actual dimensions of a typical Class E mast will run about 19′ to 21′ in length, 4½″ to 5″ in depth (front to back) and from 1¾″ to 2⅛″ in width at the thickest part. A Class C mast, by contrast, will run from 24′ to 28′ long, and from 5″ to 7″ deep, by 2¼″ to 2¾″ wide. "Quite a stick!" say you. And it *is* quite a stick, particularly to those accustomed to looking up along the spidery masts of Stars and such craft. But when I tell you that, in a good breeze, one of these masts has enough drive in itself to move the boat without any sails, you can see that it is not up there just because the ice boat men know no better. On the contrary, the ice boat men, because of freedom from restrictions in design, have gone further toward complete adoption of Curry's principles and those of the airplane designers than have the sailors on water.

The next important matter is attachment of the standing rigging, shrouds and headstay (or stays). The proper location of the mast fitting for this rigging is far more important to full development of power than is usually realized. A couple of action photos of a Skeeter first showed me what was going on when a breeze of wind got the boat up to real speed. By attaching all the stays at one point, and this point not the top but a spot about one-third of the way down the mast, the designers had accomplished two desirable things.

First, when the boat started out, moving slowly, her full-cut sail, with plenty of draft, was just what she wanted — the high-lift, low-speed wing, if you will. Soon she was up to real speed. Now the draft was excessive. Her skipper merely trimmed the sheet hard, pulling the after edge of the sail down and bending the top of the mast aft. This resulted in throwing the lower part of the mast, below the stays, forward, in a beautiful bow which effectively removed a large part of the now-unwanted draft. A second photo, from the bow, revealed another interesting result of this method of staying the spar. The lower portion, below the stays, was bent to leeward but the upper portion was deflected to windward because of the stiffness of the mast and the small sail area up there. The two bends had transformed a straight stick into a beautifully curved and amazingly efficient wing edge. The first bending effect is familiar to all users of the *Pimm* rig on Stars: alteration of draft by bending the spar fore and aft. The second, however, was new to me. While it was in this case all part of a single bend, I doubt whether the deflection to windward of the top of the mast can be accomplished without the lowered stays which are possible with our big, relatively stiff, ice boat masts.

Stay attachment to a rotating mast presents another problem, that of proper attachment to allow, or even encourage, the pivoting action. The tendency of shrouds attached to tangs in the usual manner is to prevent rotation and, though the normal slackness of ice boat rigging (due to its being set up to a flexible runner plank) will permit some rotation in any case, it is better to try to encourage rotation by rigging the stays in some other manner. There are three accepted solutions. The first, and least satisfactory, consists



Here the mast is stepped on a T bar so that it may be shifted forward or aft. The halliard cleat shows up well

of a wide stainless steel or duralumin band wrapped around the front of the mast and carrying three little lugs to which the stays are attached. This type works to prevent pivoting rather than to encourage it, and there is a tendency for the headstay to tear off its particular lug due to the rotation of the spar.

The second type is an improvement developed by a Midwestern professional builder. A cast aluminum block is mounted on the front of the mast, and a bolt passes through it from side to side, to which all three stays are attached — the shrouds to the ends and the headstay to the center, where the block is cut away for the purpose. Because the point of attachment is forward of the center of rotation of the mast, the pull on the weather shroud tends to make the mast rotate. This fitting is quite satisfactory, and has but one drawback: the disturbance of the air flow in its immediate vicinity which robs the rig of some of its power.

The third method is ridiculously simple, yet the best of the three in many ways. Attach the headstay to a single tang or to the bar of a small but strong boom-type plate fitting. Attach both shrouds to a single bolt passing through the mast, from side to side, and *cross* these wires over one another so that the port shroud leads up, across the front of the mast and around to the starboard end of the bolt, and vice versa. The pull on the weather shroud rotates the mast exactly as we want it to rotate. Wear and fatigue in the stiff rigging wire can be avoided by fitting the upper ends of the shrouds with short pennants of flexible wire. Sheathing the mast with thin copper or brass, and grooving it for the under shroud, are refinements which will help further to reduce chafing. The great advantage, aside from the help to rotation, is the absence of any special fitting, and the clean, uninterrupted wind flow around the spar. A saving in expense and a gain in power and efficiency at the same time should be convincing arguments.

So much for the matter of where and how to attach the rigging. The type of wire used will depend on what you can get; by all means, use stainless, if you can get it, otherwise, use tinned aircraft cable, of the stiff 19-strand type.

A word about the rotating mast step before we go on to the boom. The simplest and best is the ball and socket type, usually a metal socket set into the heel of the mast, riding on a metal ball mounted on deck. One word of caution about this type of fitting: The socket should be a good inch or more in depth, to prevent possible unstepping of the mast while coming about on rough ice. Adjustable mast steps of this type have the ball casting arranged to slide fore and aft in a piece of dural channel mounted on deck. Several holes in the sides of the channel permit corresponding positions of the ball casting, which is held in place by pins through the holes. A satisfactory home-made version is a trailer hitch ball, mounted either on deck or in the heel of the mast, working in a metal-lined socket. No lubricant seems necessary in these fittings.

The boom is far simpler than the mast, both in function and design. The accepted type, in recent years, has been the "plank on edge", whose depth from top to bottom prevents the sail from arching it upward, yet whose thin cross-section permits it to bend sidewise and to conform somewhat to the curve of the sail. This bending is slight, and not too effective, and I believe that a better solution would be the flat-topped boom with airfoil-curved edges, like the famous "Park Avenue" boom of the cup defender *Enterprise*. The plank type boom is easily made by grooving and gluing together two thin boards, preferably of Sitka spruce. The slot is like the one in the mast but, because of the tremendous downward pull of the sheet blocks, there is a strong tendency for it to split and allow the sail to slip out. A line of countersunk flat head woodscrews joining the two halves of the boom just under the slot will overcome this. Another successful alternative is a split aluminum tube, held down to the boom by wood screws, which replaces the wooden tunnel. The boom is usually from 4½″ to 6″ deep and from 1⅛″ to 1⅝″ thick when finished. Top and bottom edges are rounded, and the top edge, down as far as the bottom of the slot, is cut away for about 6″ next to the mast.

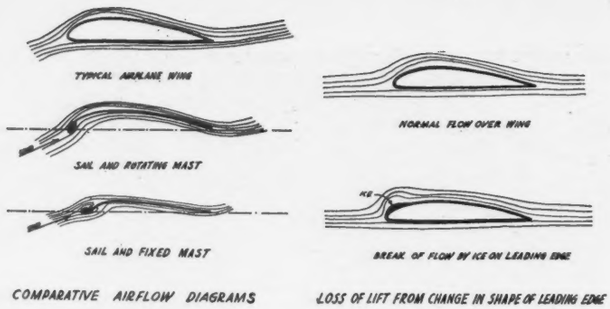
Mead Gliders, Inc.

A modern bow steerer, cat rigged

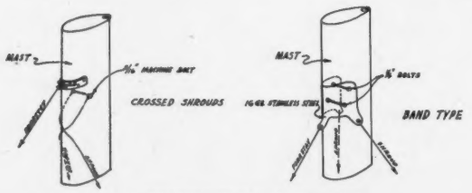
The gooseneck fitting must not only allow the boom to swing from side to side but should also permit it to rotate so that it always follows the alignment of the foot of the sail, and stands vertically only when the sail is not drawing. Early plank booms were rigged with bulky wooden jaws, which were a loose fit on the mast so that some rotation was possible. A neater solution is to use a regular roller reefing gooseneck. This is a neat bronze jaw which hugs the mast and carries a rotating boom jaw on its after side. It is satisfactory in operation and accident-proof. The gooseneck fittings designed for Class E boats, consisting of a track on the mast carrying a universal-joint boom fitting, seem satisfactory for Class E and Class D rigs but are not recommended for anything larger.

Now that we have our spars and standing rigging, the rest of our power plant is the sail, with its accessories, the battens, and the control elements, sheets and sheet blocks. One could write volumes on sails. Both the theory and practice of sailmaking are complicated and fascinating subjects. However, a brief outline of the desirable features of a good ice boat sail is a necessary supplement to our discussion of the rig in general, and of the mast as leading edge of our airfoil. The mast is the leading edge, and the sail should correspond properly to the rest of the top surface of the plane wing — a rigidly set, permanently arched surface.

Heretofore, sails have been cut "full," so that the wind would blow them out into the desired curve. Naturally, such sails hang limp and useless until the breeze strikes them. By contrast, the modern ice boat sail, rigidly set to the desired curve, wind or no wind, is a great deal more efficient. No time is lost when the breeze strikes; power is instantly generated without the wait for the sail to fill. The theory and practice of development of power by an airfoil starts with the deflection of the air current by the leading edge and the surface immediately behind it. If this surface is only


TYPICAL AIRPLANE WING
NORMAL FLOW OVER WING
SAIL AND ROTATING MAST
SAIL AND FIXED MAST
ICE
BREAK OF FLOW BY ICE ON LEADING EDGE

COMPARATIVE AIRFLOW DIAGRAMS — LOSS OF LIFT FROM CHANGE IN SHAPE OF LEADING EDGE



STAY ATTACHMENT TO ROTATING MAST

loose cloth, it will be blown back from its curved position ("backwinded") unless the angle of the sail to the wind is kept pretty full. Or, to say it another way, one must steer several degrees farther from the wind with a full sail than is necessary with the stiffly-arched sail. It is not easy for even the most experienced water sailor to realize this and to grasp how ice boats can point so high with such full-cut sails. He suspects, and rightly, that they are actually driving the forward bulge of those sails right into the wind — and yet they seem to get results! He tries it with his sail boat, and all he gets is a luffing, flapping sail.

This miracle is accomplished by one simple and tremendously effective device: the full-length battens, running parallel to the boom the entire width of the sail from leach to mast. They are pushed into their pockets and made to bend as much as the skipper deems necessary for the wind blowing at the time. (Less wind, more bend, is the rule.) When all the battens are set up, the sail has become a rigid, taut, pre-curved surface. Because of the constant pressure of the bent battens, both ends of the batten pockets should be thoroughly reinforced. The battens should be plenty wide — 1¾" is a convenient and adequate width — and should be of oak, ash or whitewood. Thickness is varied so that the greatest curvature will occur in the forward third. The after, or butt, end is usually from ¼" to 5/16" thick, while the mast end is more often about ⅛". The taper is usually divided into thirds for convenience, the after end being thickest, the middle third next, and the inner third thinnest. The battens should be about 6" longer than the pockets into which they fit, and several holes, about 1" apart, should be bored through the butt end to permit adjustment of curvature.

To return to the sail itself, the canvas should be much heavier than that used on a sail boat. The pressure of the battens will soon ruin the shape of a sail made of light material, and the use of the battens makes light cloth unnecessary. The speed of ice boats and the vicious drive of the winter wind all call for good stout cloth.

The controls for the sail (halliard and sheet) are simple. For the halliard, use wire, by all means, but do not splice the linen or manila hauling part into it. There is too much danger of the splice letting go under the stress of sailing, and there is a neat and simple solution of the problem of belaying the halliard and disposing of the coil of hauling part. This is a "cleat," made of a short length of dural channel, fastened to the forward side of the mast at the foot. When the sail is hoisted, the hauling part, attached to the wire by a snap hook, is removed and stowed in the cockpit. The halliard is belayed by passing a pin through the eye in the end and one of several sets of holes in the channel flanges.

The main sheet (jib sheet also, if there is one) should be of the best quality linen or manila bolt rope. Four-strand is preferable because of its great flexibility. The prime requisite of sheets is that they run easily and do not tend to kink: to this end, sheet blocks of the non-swiveling type are superior to those which turn with every embryo kink in the rope. Careful running down of kinks before starting to sail is one of the "musts" in ice boating. Large sheaves, preferably roller bearing, are the other desirable feature of sheet blocks. Class E rigs usually carry three blocks on the boat and three on the boom, with the standing end of the sheet at the tip of the boom. This gives a six-part sheet for a 75 square-foot sail. "Ridiculous!" say the sail boaters. And ridiculous it seems, I must admit, until you try it with less. Sheet trimming is a chore, and, since the ice boat's sail is always close-hauled, the amount of sheet to be handled is not excessive, even with so many blocks. Larger rigs carry more blocks, of course, and I have found a nine-part sheet to be none too much for a Class C rig. In fact, in a good breeze it isn't enough. In light airs, one or two blocks may be omitted at the discretion of the skipper, to give more "feel" to the sheet.

The arrangement of single blocks in a train, rather than the use of multiple-sheave blocks, may call for explanation. Multiple sheaves invite kinking, whereas a set of single blocks, arranged so that the sheet travels back and forth between them like a lacing, without ever doubling back over itself, practically eliminates kinking if a bit of care is taken. Also, the use of several blocks, spaced some inches apart, spreads the pull on the boom and results in a more even grip of the sheet on the sail.

The cleat for the halliard is described above, but cleats for the sheets are a controversial matter. Perhaps the key to the situation is the fact that when the wind is strong, belaying the sheet is foolhardy; when the wind is light, there is no need to belay it. My own conviction as to sheet cleats for ice boats is that every boat should carry a flaming red motto painted on her cockpit rail: "Never use a cleat when there is wind enough to hike."

When the breeze is lighter, the sheet may be belayed, and the skipper can loll in the cockpit and enjoy a fine afternoon's sail — if he is that kind of a skipper. I have never seen one in an ice boat. No matter how light the air, the typical ice-boater is doing his best to get every bit of speed possible, whether racing or just sailing around. For this, playing the sheet constantly is essential. There is no "feel" of the boat through the rudder, such as that which the sail boat skipper uses to such good advantage. The steering runner has no grip in the ice equivalent to the grip of the sail boat's rudder, and cannot possibly transmit any messages to the helmsman as to whether he is carrying a weather or lee helm. But "feel" *via* the sheet is another matter. The power and pull of the sail is directly transmitted to the skipper's hand through the sheet and, through this instantaneous telegraph, he can tell when a shift of course has increased or decreased the power of his rig long before an appreciable change in boat speed is evident, and without any apparent difference in the set of the sail. The power of a violent puff, apt to cause a high hike or even a capsize, can be felt instantly and in ample time to ease the sheet a trifle. In fact, the whole business of getting the most out of your boat depends on a keen coördination of hand and eye to keep giving her the maximum possible drive without getting into trouble — and this makes constant sheet-trimming mandatory.

This completes discussion of the rig, or power plant. The principles outlined apply equally to bow-steerers and to stern-steerers.

(To be continued)

To sail the Maine Coast is every yachtsman's dream, and it's even greater fun when done in company with another little ship — and her companionable crew

TWO'S COMPANY

Take Two Captains and Crews Who Like the Weather as it Comes, and it Will Double the Fun of Cruising

By RUTH BRINDZE

TWO boats, cruising together, nudging each other's fenders at cocktail hour, laying side by side for the night — that's what I mean by "two's company." Take two captains and crews who like the weather as it comes, whose gastronomical tastes are similar, and political faiths dissimilar, and the combination will double the fun of cruising. It's not an original recipe but, having sampled it, this cook feels the urge to pass it along with a few personal seasonings.

And, boys, I cooked! With six hungry men in the party I had the kind of audience that would make any cook shine. Give them stew, girls, and they make derogatory remarks about the cooking at Pierre's. But I'm getting ahead of the story.

The cruise was a conspiracy. The skipper and I were supposed to take an easy, lazy cruise getting no place in particular in as long a time as we could take for a vacation. Instead, we covered well over a thousand miles of bottom in a couple of weeks and, instead of lazy cruising, we sailed on what we thought were propitious nights as well as during the day and had whole sail breezes and better most of the way. When all of this started, it seemed to be simply fortuitous. I know better now.

Our friend, Ed, who owns an auxiliary of the same class as our pride and joy, was going to Maine. His vacation was to start a week ahead of ours but it happened that he was detained in town until the morning before we were to get under way. Since we were starting from a point about a hundred miles further east, Ed could, by sailing non-stop, meet us in the first harbor we planned to put into. This much was arranged; everything that followed just happened.

The first morning we sailed for a cove some fifteen miles away where the swimming can be described only in the superlative, and there we were to rendezvous at noon, to decide where to anchor for the night. Well, the wind was light, and the adverse current was heavy. Motoring would have been sensible but, when we happened to be ahead, there wasn't much sense in speeding on. If we were behind, we just weren't going to turn on the coffee grinder. (That sort of thing happens regularly when you're sailing in company.) Besides, sailing was fun and the water was so clear that when we tacked in close to the beach to play the fair tide, we could see the rocks and vegetation at the bottom as clearly as if we were in a glass bottom boat. And it was more exciting. Only one hardy young man got a swim that day; we reached the cove at sundown and, even in midsummer, New England evenings are cool. But just before we rounded up to anchor, Ed steered alongside and shouted: "Turkey dinner tonight. Come and get it!" Maybe it was that good home cooked turkey, maybe it was all the good talk afterwards, or the good sailing before. Anyhow, I began to think that there was a lot to be said for continuing to sail in and with company.

Well, to make this part of the story short, we agreed at the

end of the next day's run (for supper that night I made a pot of stew and the compliments, etc., gave me quite a head) that if Ed would go to Provincetown with us, where we were to visit some resident yachtsmen, we might then go to Maine with him. I say "might," but the captain already had the answer for he immediately got busy checking his charts of the Gulf of Maine which, by coincidence, happened to be on board. The northwest storm signal was flying at the east end of the Cape Cod Canal when we started for Provincetown, and it was really blowing by the time we were ready to go back to the boat after a ninety-nine course dinner ashore. Provincetown isn't a bad harbor in a northwester. "But for us, you would have been outside now," we crowed. Ed agreed that the Provincetown visit was completely satisfactory, and we all felt pretty good about things. We didn't know what we were all going to take when we made the run to Maine.

Next day it was still blowing great guns with the wind pretty much on the nose. Walking ashore sounded like a good way of doing our daily dozen and, with the party split into two age groups, a start was made. The aged, but not infirm, group with which I walked across the dunes had much the better time. Ed's two sons, one just out of college, the other an alumnus of a couple of years, and two friends hired bikes and went tearing around the usual tourist roads.

This mixture of ages was, I think, one of the reasons for the success of the party. It wasn't merely that there were usually two shore parties, sedate or energetic, between which to choose, but the boys' skylarking was generally good tonic. I'll never forget the time they came charging down on us in one of the narrow reaches in Penobscot Bay yelling for buoy room, or the run up Buzzards Bay in a fresh southwester when we, on the starboard tack, held our right of way. Another coat of paint on either of the boats would have made it too close. As it was, the maneuver was simply exhilarating. And that word describes all the sailing of the cruise.

We weren't out to race. In fact, there were days when we positively said that we were not racing. But sailing in company with another boat does make for competition — and for better sailing. The do or die atmosphere of formal racing is absent, and you have the fun of seeing what you can do against the other boat.

Except for the run from Provincetown to Maine, the boats were always within sight of each other. Even that night the skippers had agreed upon a signaling system but, with the wind blowing us to Maine at around nine knots under jib alone, there wasn't much time for signaling. That sleigh ride was the only time where one of the difficulties of the company idea turned up. At dark, the boats were within sight, and both were running under mains. Spinnakers, it had been agreed, would not be carried after dark, but we doused them before the scheduled time in a freshening breeze. After dark we got the main in and set the jib, and we knew that we had all the sail we wanted. Ed's procedure was about the same.

Cape Porpoise Light is a welcome landfall

"Erewhon" is her name, and she is known as a Weekender, but we refer to her as our "pride and joy"

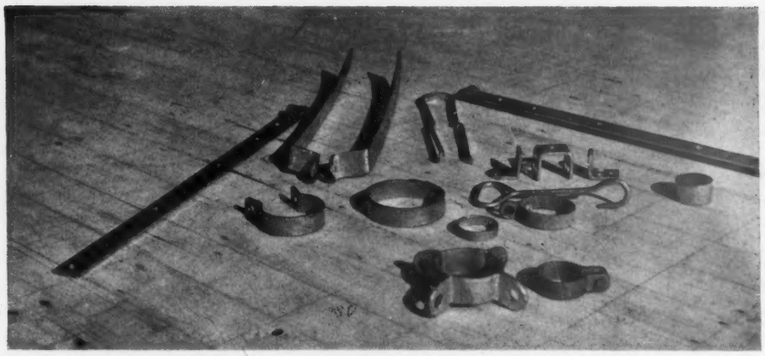
But we wondered, all through the night, how he was making out, and he wondered how we were doing.

While I'm devoting myself to difficulties, one other should be mentioned. Although we had all of the "1200" charts on board, we did not have some of the necessary large scale charts and on one run up the Penobscot a chart that could be followed without eyestrain would have been handy. The skipper navigated with his usual precision but there came a time when the jumble of buoys in the water didn't seem to conform to the pattern of dots on the chart. We knew that the navigator on the other boat had a detailed chart, and we decided to follow. Perhaps we should have noticed her skipper's unusual reluctance to sail on ahead, but our thoughts were with the buoys. In any event, we kept on, checking the buoys as best we could, and it was only after the hooks were down that we discovered that they had been following us because we looked as though we knew the way.

Generally, the skippers got together at least once a day to pore over charts, at which time the next run was planned and the time for departure named. If there was any question as to whether we would go farther, or not as far as the harbor selected, some midway mark was indicated for a rendezvous. This system worked perfectly. Both skippers and crews were punctilious about being ready at the time appointed for the departure. And what stalling there was was done in a nice way. If you were a trifle late, for instance, you might discover an extra cupful of superlatively good coffee that had to be tasted by the skipper of your sister ship.

Oh, yes, we ate many breakfasts, as well as practically every dinner together, alternating between being guests and hosts (if you may use those terms when the commissary was supposed to be on a share and share alike basis). There was one breakfast for which I had agreed to make farina, the

(Continued on page 70)



HOME-MADE FITTINGS

By J. EMMETT

PRIMARILY, I made the fittings described here because we wished to have authentic gear on a little 41-foot fisherman type schooner designed for me by Howard Chapelle. Keeping the cost of building down was a secondary consideration. Through his work and research, "Chap" has had a wealth of experience with this type; his living close by enabled me to make good use of his voluminous notes and sketches on the gear and fittings used on the big fishermen, and to work out with him modifications to suit this little boat. Yacht fittings, as shown in marine hardware catalogs, were hardly suitable and the cost of having pieces forged to order would have been prohibitive. Priorities, which were being set up about that time, had to be taken into consideration, also.

All fittings were to be plain, galvanized finish, made of black or ordinary iron or steel, then sent away for coating. After determining where this coating could be done, and finding that black iron or soft steel bar, strap, half-oval, and rod, as the stock of different shapes is called, was to be had, a list of the pieces required was made. Facilities for the work were poor, but a little forging and ironwork, done years back when I served as helper to a shipyard smith, gave me a pretty good idea as to which pieces could be made up and which it would be better to buy. Two- and four-eye bands, boom and gaff one-eye adjustable compression type bands, and the three-boom travelers seemed too difficult for me; the latter were available as stock fittings but the bands were ordered to be forged.

This left the chain plates with the lower dead eye bands; stem fitting at the water line to take the bobstay; the gammon irons to support the bowsprit; a cranze iron for the tip of the bowsprit; half oval irons to shoe the guard rails, with plates let in their forward ends to take bowsprit shrouds; cap irons to protect the chock rails; a fisherman type traveler for the outboard end of the jibboom; deck travelers for the main, fore, and jib; a dory hook; bands or ferrules for heels of masts. Other smaller bands and rings I considered worth trying.

Details of each piece were first laid out full size on boards. To make these, I bought 80′, or four lengths, of 1¾″ half oval; 30′ of 1¾″ by ¼″; 20′ of 1¼″ by ¼″ flat; 10′ of ½″ diameter, and 10′ of ⅝″ and ¾″ round or rod; and 20′ of ⅝″ by 3/16″ band, all black iron or soft steel stock. The total cost was about eight dollars. This quantity was more than enough to allow for waste but one must buy from dealers in full or half-lengths.

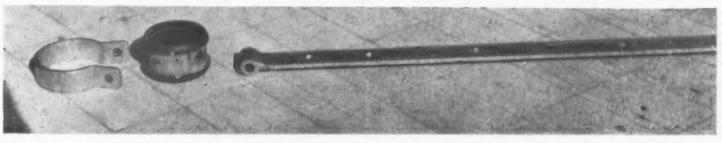
The half oval iron, to be fitted outside the oak guard rails about the hull, was to be bored and countersunk for screw fastenings before being galvanized. This was in order to avoid running rust streaks which result when half oval is bought already galvanized and then bored for the fastenings. After measuring and cutting for length (two pieces each side were required to go from the bowsprit shrouds forward to within seven feet of the counter), fastenings were bored for and countersunk as required. The forward and after ends were bent cold to a short curve to fit the rounded ends of the oak guards; then a slot was cut a few inches back from the forward end of each side set. Holes ¼″ diameter, closely spaced, were drilled, hacksawed and filed out to leave a ¼″ by 1¾″ slot to take the plates for the bowsprit shrouds. These plates were hacksawed out of odd pieces of ¼″ by 1¾″ stock and shaped; then slipped into their slots from behind, their shoulders preventing them from coming all the way through. Instead of being set in so as to be flush at the back, they were let in enough to leave a hollow, ⅛″ deep. This was to allow welding to flow in to better advantage. All through the process I tried to have the joints or places to be welded a loose fit so that welding could be flowed in; the excess was later filed flush without weakening the weld.

The fitting for the face of the stem was made in much the same way: a length of half oval was cut with a plate shaped to take the proper lead of the bobstay let in a slot for welding later; holes for bolt fastenings were bored through the stem. The latter were located to clear any main fastenings through the stem. The slight curve was bent in cold and the ends were left square as this fitting was to be let in flush.

The chain plates were designed to take bands about the lower dead eyes. The dead eyes themselves — someone has said they're a nautical affectation — had already been turned out of seasoned locust, with a wide shallow groove to take 1¼″ by ¼″ bands. The upper dead eyes have only a narrow groove to take wire rope of the rigging. All were drilled for lanyard eyes; these were shaped with a gouge, then soaked in heated boiled oil to prevent checking.

For the chain plates themselves, correct lengths of 1¾″ by ¼″ flat iron were cut, and the forge at the local shipyard was used to heat the upper end of each. Then the edges were hammered for about 3″ to narrow and thicken the iron where it would be bent about to form the eye. This was not difficult. The ends were then reheated and the iron held in a vise so that the shaped end could be hammered around a short length of ½″ rod to form the eye which takes the pin through the dead eye band. No effort was made to forge this securely; the end was merely butted against the iron with a slight opening left for welding, as before.

The resulting eyes were rather rough looking until they were finished with a coarse file and the eyes opened up



Above and to the right may be seen a collection of fittings for the author's boat. The four-eye band is a professional job but the chain plates, gammon iron, cranze iron and other gadgets are amateur-made

slightly with a drill. It must be remembered, when boring all holes and in countersinking for screw fastenings, that galvanizing will fill these openings somewhat. Figuring on keeping the welds inboard and letting the chain plates into the hull planking for about half their thickness, the outer corners were chamfered slightly; then the holes for fastenings were bored a crowding fit to prevent the carriage bolts which were to be used from turning. "Boughten" chain plates seldom have holes for fastenings correctly located but, by making one's own and laying out details of the clamp and shelf construction of the hull full size on the board, it is possible to have these holes where they will not reduce the strength.

Dead eye bands were cut accurately for length out of 1¼" flat stock; their ends were bored to take ½" Everdur pins or bolts, then bent cold. The sharp turns for the lugs were bent in a vise; the loop itself was bent and hammered around a piece of heavy pipe. Avoid doing any more bending than necessary after galvanizing as the coating may be broken. The bands were left open enough to slip over the dead eyes and only one bending was required to close them in.

The gammon irons, which are fastened one on each side of the stem and take the bowsprit, were made up of the same stock as the chain plates. They were a simple cold bending job.

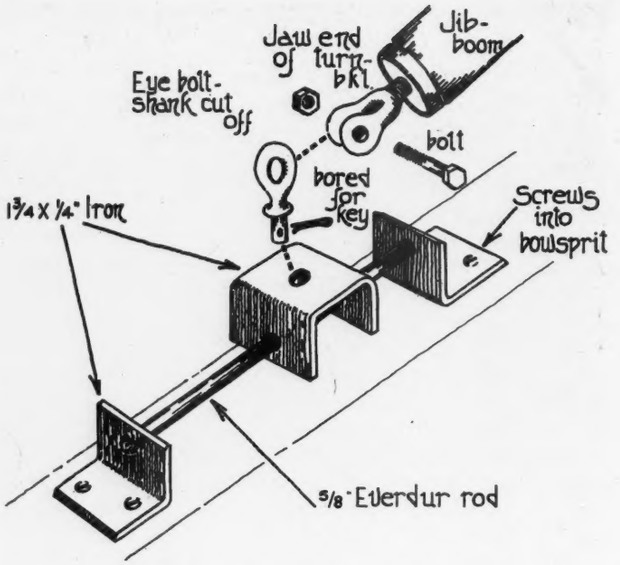
The three deck travelers were bent cold, too. They were merely lengths of ⅝" and ¾" diameter rod, the tips threaded to take nuts over washers below the deck or house top. A slight curve was thrown in their top sections to match the camber of the deck. Clinch rings, a heavy thick washer, were used as plates. Punch marks were made to guide in locating them correctly for welding. Later, they were held slightly off true while being welded, in order to have them hug the deck camber tightly. Traveler rings to take sheet blocks were merely lengths of rod, bent cold, ends being butted against one another to leave a slight opening for welding.

The fisherman type traveler for the forward end of the jib-boom is supposed to obviate any difficulty in getting the jib all the way down. The sketch shows construction details. Some experimenting with the length of the Everdur rod may have to be done after the boat has been rigged and sailed. The angles that fasten atop the bowsprit, and the fitting that slides on the rod that goes into these, were made of 1¾" by ¼" stock, bent cold. A heavy bronze shoulder type eye bolt, with its edges filed somewhat flat, goes through a hole in this upper fitting; its excess length below is cut off and a heavy cotter pin used to hold it down. The fitting in the end of the boom is the jaw end of a bronze turnbuckle, its outer faces filed flat; it will straddle the eye bolt and be held with a machine bolt or rivet through it. It was thought best to throw most of the wear here on bronze. Ferrules to prevent the boom from splitting were made of light band, ends or joints being merely butted for welding later. This was done with all odd bands, rings and ferrules made.

The dory hook shown in the photograph was bent cold, the handle end butted against the stock for later welding, and the hook point shaped with a file. The light nose iron for the end of the bowsprit, where it is let into the wood to go under the eye bands there, was made of narrow band stock, bent cold. The edge curves in the half oval iron, used to cap the top of the chock rails to guard against chafe when getting the anchors aboard, were also thrown in cold.

When the pieces were taken to the machine shop for welding, half a day was spent there to see that the plates were properly fitted. Most garages do this work but I prefer a machine shop, especially a waterside or marine shop, as the operator is more apt to realize the importance of strength in boat fittings.

The welded spots were then gone over with a file to smooth



Detail sketch of the fitting on the bowsprit to take the end of the jib club, all turned out by the author

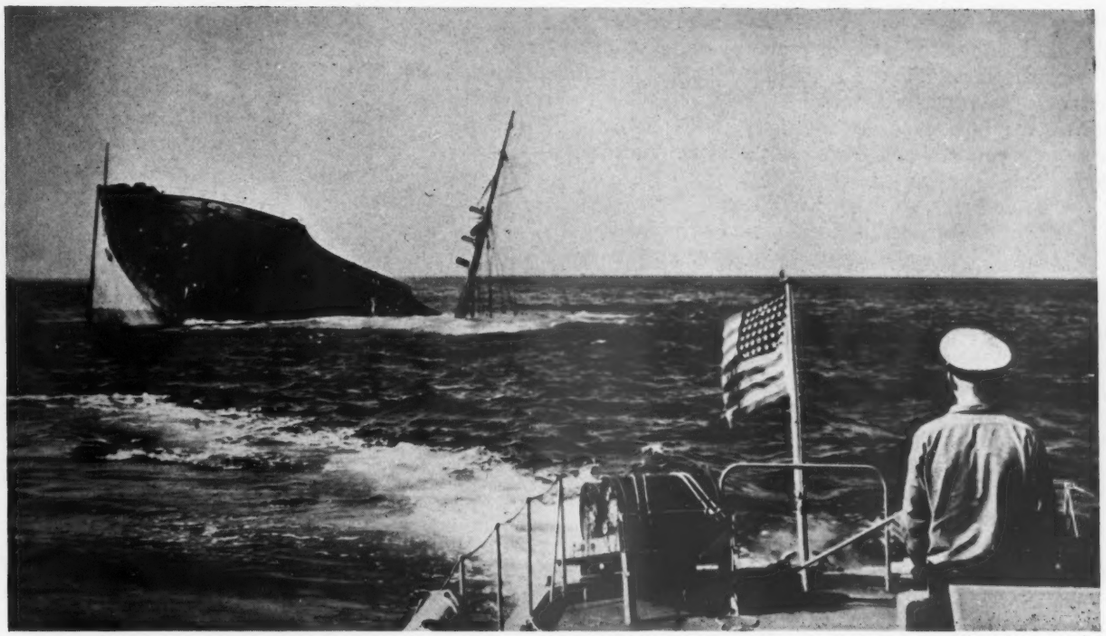
them up, and any crust left from the welding was chipped off to afford the galvanizing every chance to adhere. Long pieces were wired to a board and smaller pieces packed in a burlap bag for shipping away for galvanizing. Most cities have facilities for doing this work and the heavy coating required can usually be arranged for. The charge for galvanizing came to about fifteen dollars for the 175 pounds of work, and pieces showed evidence of having been dipped twice.

While a forge, with its quick heat, was available, any heating necessary for making these fittings could have been done with a coal fire in a Shipmate or other stove. In a pinch, a blowtorch could have been used, as just enough heat for bending and working, and not for forging, is required. A drill press made boring holes easier but a breast drill might have been used; or, better still, hole locations could be marked with a punch for drilling at the machine shop before welding. Any necessary threading could be done there, too; this is, of course, done before galvanizing so that the zinc can get into the threads too. These are cut deeper than ordinarily, then galvanized nuts are bought for fitting on them. A heavy machinist's vise is a necessity, and you want a hacksaw with good blades, sharp coarse and fine files, and a heavy hammer.

Bronze and Everdur stock could be used for such fittings but might have to be annealed for taking sharp bends; this is done by simply heating and cooling the stock before bending. Everdur straps made up for the rudder fittings were handled this way without difficulty. On them, of course, no protective coating was required.

Iron is superior to soft steel for making such fittings but is harder to secure under present conditions. Priorities may even make it impossible to buy the stock required but suitable pieces can often be located in junk yards — with the possibility that such old iron is apt to be of better quality than newer stock. Determine first whether galvanizing can be done, now that zinc is under strict priority, and have your fittings made well in advance.

Making your own enables you to have fittings to suit the peculiarities due to the type of your boat. They will be strong if correctly designed, well made and properly welded, and the cost will be low. Of course, you mustn't mind dirtying your hands and perhaps smashing or burning a finger or two in the making.



Press Association, Inc.

Here, 1 torpedo + 1 enemy submarine = 1 less merchantman. But increasing numbers of our new submarine chasers are now giving this equation a different answer!

GET THAT SUB!

The "PC" Navy, Which Comprises Both the 110- and the 173-footers, Is Making a Name for Itself

By JOHN P. HOLBROOK
Lieutenant (j.g.) United States Naval Reserve

I HAVE been in sail ever since the days when a rowboat and a big umbrella served as my medium of marine transportation, and subsequently the sailing man's natural distrust and aloofness towards "naphtha boats" has been gradually instilled in me down through the years. However, when it comes to the 110-foot subchasers — SC's in the vernacular of the Navy — I must admit that I have become completely converted. Such foreign words as "lube oil," "pitch control" and other power boat terms now roll off my tongue as if I had been reared with them as cribmates.

In a word, sub-chasers are swell! They are compact, efficient, seaworthy little ships which are a pleasure to go to sea in. The "PC Navy," which comprises both the PC 173-footers and the SC 110-footers, has largely been designed by naval architects whose experience has been mainly with yachts. My own experience is limited to the 110's, and while I can definitely state that these ships are establishing a twenty-four hour a day schedule of proving that they are an effective answer to the submarine menace, I know that their larger sisters are equally efficient in "dishing it out" to the U-boats.

These 110's are really remarkable. They have a very small turning radius which means that when Fritzy tries to use radical escape tactics such as sharp turns, we are able to turn inside him and drop ash cans right over him. The depth charge armament of an SC consists of two parallel racks, each containing four cans, mounted on the stern. Just forward of these racks are the K-guns, which fire a single charge out and away from the ship. The distance these travel through the air before they hit the water depends on the weight of the powder in the shell which provides the motive power; it varies from 50 to 120 feet, and is regulated by the circumstances of the attack.

These charges, together with the cans rolling off the stern at short intervals, lay a pattern of charges in different locations and varying depths which is calculated to get the sub at whatever depth she happens to be. Even if the charges do not explode within the lethal distance, they are certain to have a softening effect, such as smashing the outside tanks or crushing the conning tower. Lethal distance, by the way, is pretty well narrowed down by the use of modern listening gear with which we can tell within an exact area just where the submarine is, in what direction she is moving and at what rate of speed. Precalculated tables tell us where and when to lay our depth charge pattern. The 110's speed enables us to get out of the immediate area quickly enough so that, when the cans start popping down below, our only sensation is a sort of crackling jolt. After we have counted the explosions of the total number of charges dropped in one pattern we start, trying to pick up the submarine with our listening gear; if we find him, we give a repeat performance. That routine continues until we either run out of charges, or until we see unmistakable and conclusive signs of destruction.

Not long ago we were serving as a member of a task force consisting of several 110's and an English trawler whose duty it was to convoy seven or eight ships to the south'ard. The trawler was out ahead of the convoy and we had the position abreast and about halfway back. One of the crew pointed out something to me over towards the horizon, but it turned

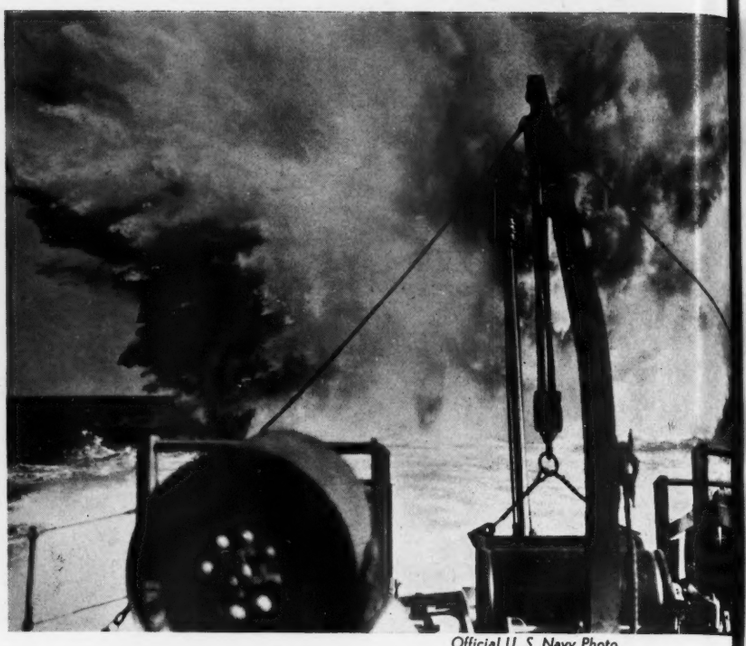
out to be nothing more than the masts of a recent wreck. Suddenly what I saw was a feather; a plume of water about a foot high, right in the middle of our brood and making about the same speed. We rang the General Alarm and started to move in. Now this business of getting right in the middle of a convoy is one of the tricks employed by enemy submarines, whenever possible. They get in there and then let go in all directions, and it can be most effective from a Nazi viewpoint! If we do find one in such a position, we have no alternative but to go in there and get it, even though we may blow up one or more of the ships we are escorting in the process. This time we moved in, tense and ready, only to find that we were just about ready to blow up a fog spar that was being towed by the leading vessel for the fellow behind to follow! The towing line was so light that we didn't see it until we were right on top of it. We all cursed in the best naval tradition and thereupon returned to our station.

Convoy duty is pretty dull most of the time, consisting as it does of sweeping back and forth, mile after mile, at relatively slow speeds. The wear and tear on the eyes are substantial, as it means looking at the water all day and all night and trying to see something while there is still time to do something about it. Our greatest trouble is getting the ships in the convoy into their assigned positions and then keeping them there. Sometimes one or more will tend to lag back out of station, whereupon they become the best kind of submarine target. When we notice such a tendency, we charge over and chase them back to their appointed stations. Our methods of speaking to them are rather unorthodox. Often the ships are of foreign registry and we have to yell and scream at them in a wide variety of tongues. Luckily, it seems that the first smatterings of a language picked up by the student are usually smutterings, and in cruising around different parts of the world I have been fortunate enough to pick up a few choice opprobria. To date, they have been a blessing in disguise, and the bridge watches of not a few foreign merchantmen have been extremely surprised to hear my dire threats — in their own language — coming out of the business end of a Navy microphone.

These 110's are small ships but they have an inordinate amount of gear aboard. The crew consists of twenty men and two officers, and at times we wonder how in blazes we can parcel them out in order to get all the work done. However, an important part of our job is to organize the various duties and delegate them so that each member of the crew is doing the job for which he is best fitted. We also arrange it so that every man knows the other fellow's job as well, which is a vital consideration when casualties occur. The *esprit de corps* is high in the "PC Navy," and our men are the most eager crowd I have ever shipped with. They always seem ready and willing to go through drills which might seem tedious, but which they realize are necessary for the efficient fighting of the ship.

The crews for these 110's have been hand picked. They all go through PC school, even as the officers do, and I have yet to find a rating who wasn't pleased and proud to be aboard. Some of the fellows get awfully seasick but they keep on the job, stand watches, and otherwise give a good account of themselves. The ships do bounce around a bit but they are admirably dry, both on deck and below, in all but the dirtiest weather, which is a great help to a seasick man.

Yachtsmen commissioned in the Naval Reserve fill the officer complements of many of these ships. While on the one hand, this puts officers aboard these ships who are experienced in handling small vessels at sea as well as making themselves efficient in limited quarters, it also brings together a group of fighting men who have much



Official U. S. Navy Photo

Look out below! "Ashcans" go rolling off the stern

the same background. The result is a group in which may be found the same grand sense and feeling of camaraderie and coöperation which has always been a part of its heritage. In the "PC Navy," by its very nature, this is a condition much to be desired; working, as we are, in company with other PC's and/or SC's most of the time.

When the SC program was inaugurated, a school was started at the same time, the Submarine Chaser Training Center, at Miami. In the beginning, the training program was beset with many problems but today it has been developed to the point where there are now several hundred officers at various stages of training in the regulation five-week course. At the same school there are countless numbers of enlisted men who will eventually man the 110's and the 173's.

The officers receive intensive training and instruction in the customary basic subjects such as navigation, gunnery, communications and so on. In addition, they put in a substantial amount of time on training vessels. These schoolships are taken outside and put through dummy depth charge attacks, buoys are dropped overboard and then picked up, and exercises are run in station keeping in company with other school ships. In short, the future officers and crews of the "PC Navy" go through all the evolutions that may be required in actual operations.

The C.O. at the Miami School is absolutely tops. He is a two-and-one-half striper, and was out getting submarines on his own hook until he was put on the beach to organize the school. Having had a destroyer, and being top scorer in the North Atlantic submarine championship, he knows what he is talking about. The members of his staff are equally experienced, with the result that the students become imbued with an enthusiasm which almost amounts to fanaticism. The *raison d'être* of the entire training program is to "get subs, hit 'em with everything you've got, and keep 'em down for keeps." Nothing else matters; sleep, food or anything else is important only in so far as it bears on the prime motive. At the end of the course, both officers and men leave Miami with no other thought than to get operating as quickly as possible, and to let the debris fall where it may — the more, the merrier. That this is so is in great measure due solely to the inspiration of one man, McDaniel.

(Continued on page 66)

UNDER THE LEE OF THE LONGBOAT

By "SPUN YARN"

LAST month I gave you October. I gave it parsimoniously in the sense of sharing a golden month. I toasted it. With a background of seven days of hard weather I took the eighth day of October and devised a panegyric of the entire month. Well, gentlemen, I was deceived. October was a louse. It wasn't the rain. It was the winds and the rolling and the pitching. All told, we had six decent days in October — only six out of thirty-one days in which I could say with conviction, "Yep, this is what Uncle Sam promised me when he said I could be a mine-sweeper." . . . But let the dead past bury the dead. Now it is November — nine days gone and each day lovelier and warmer than a June bride. Do you think on that account I give you November? Not noticeably. If you want it you can take it and write your own invective.

Yet I am grateful to an evening in October for the revelation of a state of mind. The day had been long and trying. Visual communication had been bad, both in the transmission and the reception of messages. On toward midnight, the boat that I was aboard developed fuel line trouble and the motor acted up. I felt my way to the flying bridge in a drizzling rain and told the lookout that I would relieve him while he went below for oilers. Presently the sweeper's captain joined me topside and said: "You know, I like a day like this when everything has gone wrong and it's a question of whether we'll get in before the motor conks out." "So do I," said I. And as one man we both exclaimed: "God damn it!"

Well, it's the same in ocean racing or in inland racing, or in cruising and in everything that relates to small boats. There's no good reason why you should enjoy being cold, tired and uncomfortable. But you do, and in enjoying it you are wise enough to know that you're a fool.

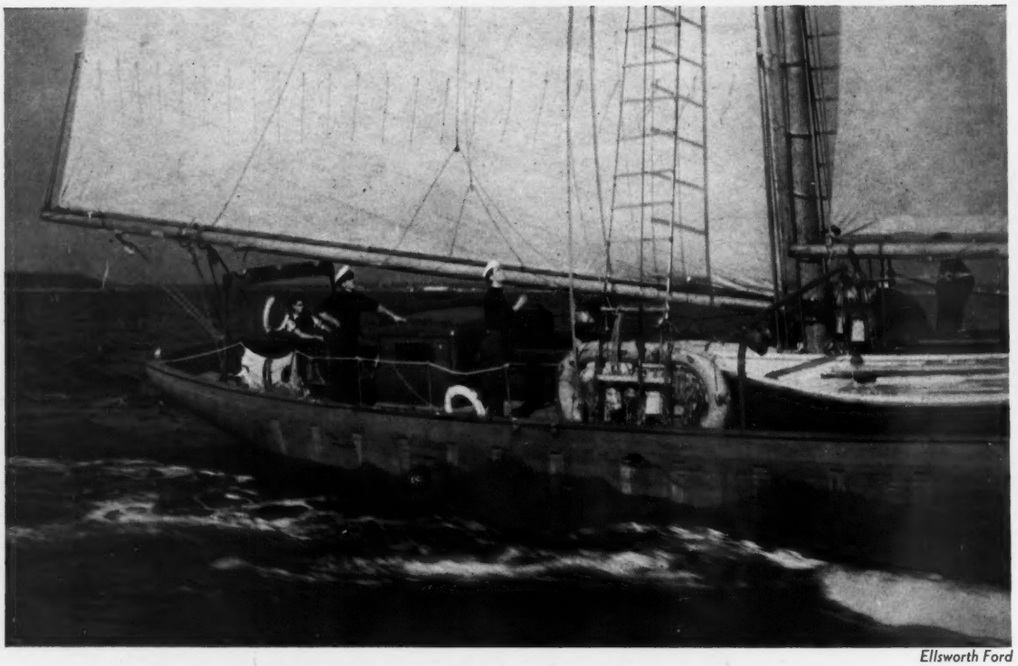
Along this line of thought, I'm reminded of the remark Lieutenant Rufus Smith made when the Admiral asked him where he would get the men to man the sail boats of the Coast Guard's Picket Patrol. Bud said that if he were given access to the Navy's list of rejected applicants he would find more than enough. He referred, of course, to the lads who sailed for pleasure — who sailed even though they lacked a college degree, or who sailed despite defective vision, who carried on the harder because of impaired hearing, or who sailed because sailing is the ideal sport for men of other minor infirmities. These had been rejected as mentally or physically unfit. Yet, because of their unreasonable liking for hard chances, they are naturals for small boat naval service. To my mind, there's a vast difference between taking it and liking it (which is expected of every naval officer and man) and taking it because you like it.

I've been severely handled for my attitude about sailing professionally — that is, toward sailing in patrol boats. "Capt. Ted," of Pensacola, Fla., says he always thought I was a sailorman, and he bets that, given a schooner with the gear he wants, he'll get as many submarines as I will with a power boat. Caleb Bilgewasser quaffs another quart of bitter and calls me a crotchety old curmudgeon. Linton Rigg says I've been so ruined by the Navy that I'm thinking like a Brass Hat. . . . Whereas all I meant to imply was that I want to sail because I want to and not because I have to, and that I'd rather be out in a motor boat than sitting out the war, as I nearly did, behind a glass-topped desk.

For a small part of your winter reading I'd like to recommend a little book called "How to Abandon Ship," by Phil Richards and John J. Banigan. Maybe you'll never have to follow the authors' counsel. But you'll appreciate being the recipient of truth with the bark on it . . . such as the advice to insert weighted sticks in water breakers in freezing weather to keep the water from freezing.

It's some months since I inserted on this page a warning against the machinations of the forces of intemperance and prohibition. But it isn't because I haven't been disturbed by the progress they're bound to make while our mobilized soldiery needs "protection" from old John Barleycorn. Don't be lulled into a false sense of security by the Election Day drubbing handed Senator Josh Lee for tacking a dry rider to the draft bill.

I hope the story I'm about to tell isn't as old as that old, old favorite of Caleb Bilgewasser's about the green paint on the periscopes of U-boats. Anyway, it's shorter. Seems that a destroyer got separated from her squadron in a spot of fog and emerged from it flying the church pennant over the interrogatory flag — which signal, being interpreted, means: "Jesus Christ, where am I?"



Ellsworth Ford

After a few days at the Base, a schooner in the Offshore Patrol spreads her canvas, outward bound

AT SEA WITH THE PICKET PATROL

By ARTHUR D. CAMP

NOW that I have lost my sea legs, I can sit down steadily and spin a few yarns about my month's service with a Coast Guard Picket Patrol. After being sworn in, I was shipped down to an Eastern Atlantic Patrol Base which is the center of the various patrols guarding the Atlantic coast from Fire Island to Nantucket. The harbors, bays and coastal waters of this area are patrolled by motor vessels ranging from 40 to 125 feet long, while seagoing sailing craft are assigned to the offshore areas. These waters, divided like a grid into squares, normally include the regular steamer lanes approaching New York from the East, but at present only the largest vessels use this route. A boat goes out on an offshore patrol for periods of about one week, and she is assigned to a particular square on which she must remain as closely as possible unless ordered to another station.

All boats are provided with ship-to-shore radio telephones and some carry submarine detection devices. All of the vessels in the offshore patrol are former ocean cruising yachts which have been turned over to the Government for the duration. The crews are composed of experienced yachtsmen who have been given ratings ranging from Seaman 2c to Chief Boatswain's Mate. Ratings are given after a rigorous scrutiny of past experience.

During the first few days I worked on the refitting of a small schooner but, shortly thereafter, I was made a crew member of a larger schooner which was about to go out on her third cruise. She was an able fisherman type 78′ o.a., 18′ beam and 11′ draft. She was equipped with every possible device for the proper navigation of the ship and the comfort of the crew, including an 80 hp. Diesel engine and a hot and cold shower bath. Her normal crew numbered eleven men, including engineer and cook.

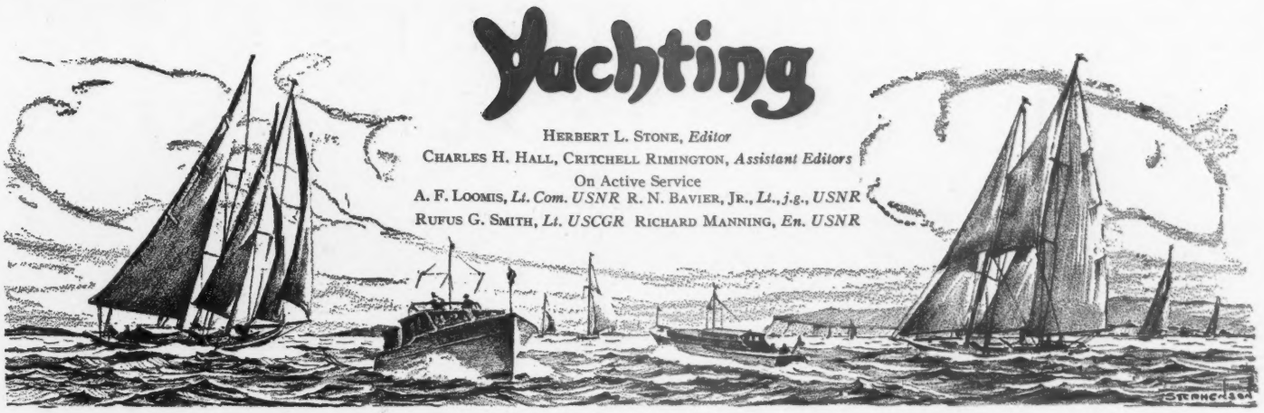
We got under way early one morning under power but, as soon as we had cleared the Base, we hoisted all lower sails: jib, forestays'l, fore and main. It took us upwards of twenty-four hours to sail out to our station on the grid. I might mention that there is no picket fence around this station and our only means of locating it was by dead reckoning and sun sights. With this accomplished, we shortened sail to the forestays'l and storm trys'l on the main, and endeavored to stay as nearly as possible in our designated area. This proved to be rather a difficult matter because, in a fairly brisk breeze (even when hove-to), the ship would drift off the grid in five or six hours.

The sailing tactics employed, therefore, are entirely different from those of the yachtsman, who is either racing or sailing to some destination and nearly always sails his boat so as to get the most speed out of her, instead of the least. When our skipper found that we had drifted off the edge of the grid, he would order us to hoist more sail and we would then tack back to the weather boundary of the station. These maneuvers were repeated endlessly.

The usual procedure is to stand watches of six hours on and six off from noon until midnight, and four hours on and four off from midnight until the next noon. When a man is on watch from 6:00 p.m. until midnight and again from 4:00 until 8:00 a.m., he only gets about 3½ hours sleep during that night, but the next night he is off during these periods and can make up for lost time. Sleeping, therefore, is an irregular function, and much of it is taken in the form of catnaps at odd times when off watch.

Lookouts forward and aft are always maintained and, in a large boat, the lookouts are doubled at night, except when one man is ordered below to handle the radio. Occasionally, when something unidentified is sighted, a watcher climbs the ratlines to the masthead for a better look. That is a real sensation when the ship is pitching and rolling, as the top of the

(Continued on page 68)


Yachting
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EDITORIAL

A Roll of Honor

IT SEEMS fitting at this time, when the Navy's subchaser program is showing results and is helping to reduce the toll taken last winter and spring, when the German U boats had things pretty much their own way, that we should devote much of this issue of YACHTING to the chasers themselves and those who man them. The ubiquitous little "110's" made a name for themselves in the last war when the "Splinter Fleet" did its part in making German submarine crews bomb-shy. This war's crop of chasers, comprising both enlarged and improved "110's" and their larger steel running mates, still has most of its work ahead of it. That the boats will earn a reputation for toughness and efficiency equal to that of their prototypes of the last war, no one can doubt.

One of the interesting features of the building program of the present "110's" is the fact that many of the yards that turned out the sub-chasers of the last war are now, twenty-four years later, building the same class of vessel for World War II. Most of these builders are those who, in the intervening years, have turned out the great fleet of pleasure boats owned by American yachtsmen.

Some forty yards produced the 444 chasers of the last war. About the same number of builders is working on the present program. Among those who helped produce the great fleet then, and are now working on this year's "110's," may be mentioned the Mathis Yacht Building Co., the Vinyard Shipbuilding Co., Gibbs Gas Engine Co., Luders Marine Construction Co., Burger Boat Co., Hiltebrant Dry Dock Co., American Car & Foundry Co., Chance Marine Construction Co. (now Annapolis Yacht Yard), and others. In addition, there are those who played a part in World War I sub-chaser program who are now busy turning out various units of the great fleet of small boats now building for the Navy to help win World War II. Some of these are Howard E. Wheeler (now Wheeler Shipyard, Inc.), Robert Jacob, Geo. Lawley & Son Corp., Great Lakes Boatbuilding Corp., Matthews Boat Co., and Elco. To build vessels to hunt the deadly submarine in two wars is, we think, a badge of honor and an achievement of which one can be justly proud. We are glad to pay them the tribute they merit.

Landing Barges — Solomons to North Africa

SINCE the Solomons operations, and the more recent and vastly larger North African Campaign, which have seen open beach troop landings on a greater scale than ever before, the Army and Navy's tremendous landing barge program has fully justified itself. We are glad that we have been able to keep the readers of YACHTING fully informed on the building and operation of the various types of craft which are now playing such a large part in the success of these amphibious undertakings.

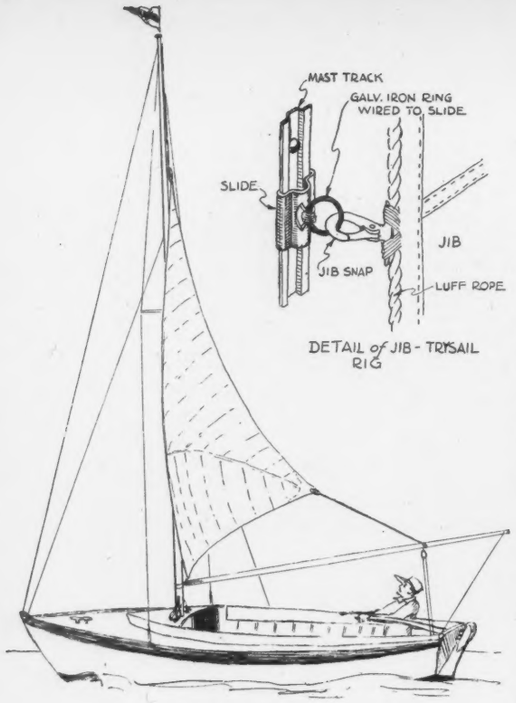
This landing and tank barge program has been on a greater scale than most persons realize. All over the country, thousands of these boats have been taking shape ever since the necessity for large scale landings and amphibious warfare became apparent. Wherever they could be built, there they took shape. First developed by a commercial yard and lending themselves to quantity production, boat yard facilities were expanded to keep them rolling off a line like automobiles in a boom year. Engine manufacturers had to keep pace with the demand for power, but this they achieved, and apparently the boats reached their goal in sufficient quantity to do the task required of them — in the case of North Africa, to land some 140,000 men (if reports are to be believed) from ships in the space of only a few hours. It was a big job well done.

A Yachting Magazine in War Time

FROM all the foregoing, it might seem to some that the editors of this staid family magazine had forgotten all about yachting and those who follow the sea for pleasure, and had "gone Navy." Let us hasten to assure any such that this is far from being the case. We have followed the sport hard this last summer, and the sport has been good. Better than anyone had a right to expect during the midst of the greatest war in history. All those who could, got afloat. Wherever military restrictions did not prevent, racing was carried on as keenly as ever. Your yacht sailor still thinks and talks boat. Which is to be expected and is as it should be. We have faithfully recorded all these happenings. We always will, and will never lose sight of the needs and interests of the yacht sailor.

But, after all, thousands of those who followed the sea in peace time pursuits are now serving in the Navy, Coast Guard or Army. These also think of and are interested in the development of the smaller vessels that are fighting this war, and YACHTING is the medium to which they turn to find out what is going on in the field in which they are now working. It is natural, we think, that this should be so, and fitting that the magazine to which they turn for their peace time recreation and relaxation should also fill their needs now.

"GADGETS & GILHICKIES"



The Jib-Trysail Rig

▶ The way most of us learn to be good sailors is by going out and trying and also by observing the way the other fellow does it. A lot of good seamanship is just plain horse sense, but some of it is the result of copying other men's ways of doing things. Nothing delights me more than to pick up some nautical nugget by watching one of my experienced friend's methods. One wrinkle that I picked up from Bob (the Green One) Moore, one blustery October day, I think is sufficiently useful for a place in this column. It could save you a lot of trouble some time if you get caught in a blow.

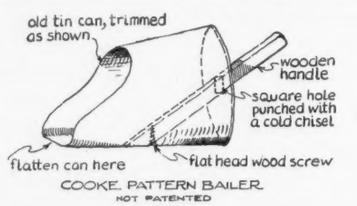
I remember the occasion very well: it was the big fall rendezvous at Price's Bend one Columbus Day, when it blew great guns out of the nor'west. I had sailed over from Stamford in my little Herreshoff "Fish" and had spent the night aboard a friend's boat. The next day it came on to blow. Even with all the reefs tucked in, *Pollywog* was overpowered. It was too rough outside to think of towing her home and to sail her would have been a terrible strain on all the gear. At this juncture, Bob Moore came aboard. I explained my predicament to him. With the practiced survey of a thoroughly experienced seaman, he took in the situation, asked a few questions about the jib I was using, and stepped aboard my little boat.

The first thing he did was to remove the mainsail, which was fitted with slides on both mast and boom. Then he brought aft the jib, which was loose footed and had a wire luff rope. He shackled the tack of the jib to the gooseneck, where the tack of the mainsail was usually secured; he bent the main halliard to the head of the jib and, lastly, shackled a stout piece of spare line to the clew of the jib and carried the end of this line aft on the main boom, making a temporary hitch near the point where the main sheet block was located. Now the sail was set flying and the halliard was winched up hard so as to keep the wire luff rope of the jib as taut as possible. Of course, the sail slatted about wildly until the outhaul, or sheet, was adjusted. This was soon done. The main boom was cocked up higher than usual, and a rolling hitch was made with the outhaul at a point which the cut of the jib indicated would be the best place to lead it, to get the proper draft in the sail. We now cast off and went for a sail about the anchored fleet. *Pollywog* handled beautifully, she had just the right amount of sail, she worked to windward well and could be run down wind and jibed in comfort and without strain on her gear. It was a joy to feel how responsive she was under her jury rig.

This experience made such an impression on me that I determined to make the jib-trysail rig a permanent part of my nautical equipment. To obviate the necessity of stretching the luff of the jib so taut, with a consequent stress on the main halliard, I conceived the idea of making some special slides to be used for setting the jib on the mainmast. I made one for each snap hook on the luff of the jib and carried them in the boat tied together and stowed where I could find 'em in an emergency. The galvanized rings shown in the sketch should, of course, be quite strong. Those known as malleable iron grommet rings are suitable as they are one piece and cannot open up under stress.

A Home Made Bailer

▶ "Oh! the law is the true embodiment of everything that's excellent," according to the late Messrs. Gilbert and Sullivan. So, on the basis of a statement by expert witnesses, I venture the assertion that the sketch appended is the best goddam bailer you ever saw, for it came from no less a legal luminary than Carleton Cooke, Esquire, attorney and



COOKE PATTERN BAILER
NOT PATENTED

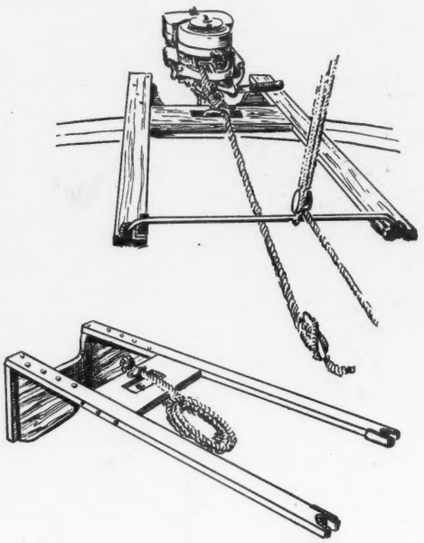
master of the ketch *Seven Bells*, possessor of the coveted Transatlantic Pennant of the Cruising Club of America. And it's simple and economical to boot.

An Ingenious Bracket

▶ The problem of how to make a removable bracket for an outboard motor that will not require unsightly and toe breaking fittings, has been nicely solved by Bill Kaup, who sent in the accompanying sketches and an excellent description of his idea. He says:

"The transom of my 28′ sloop being in no wise adapted to take the stress of an outboard bracket, my friend Dave Conlan (now with the Amphibian Command) and I put our heads together and came up with this home-made affair. It has two points that might make it worth passing along. One: the same general plan ought to work out well for any number of sailing craft, the after deck arrangements being so similar; two: it needs no special attachments on deck or hull — when not in use, you have a sail boat as her designer intended her to be, with no bolts or wingnuts or bracket sockets to mar her looks.

The drawings should make the construction clear. The two legs are notched and leathered to make a snug fit against the vertical riser of the mainsheet horse. Leather on the inside of the legs keeps them from being scarred by the shackle of the sheet block. The crosspiece, leathered underneath, rests on the taffrail; the opening in this is carefully cut to fit the Skene chock on the taffrail. At the ends of the legs is a transom piece to take the motor, this piece being braced by the two triangular 'wings.' Just abaft the opening in the crosspiece, a bronze fairlead is fastened, the position being such that a line through the fairlead passes under one horn of the chock. A stopper knot in the line keeps it from coming through the fairlead. Drop the bracket in place, as in one of the sketches, haul the line taut, under the chock and make it fast to a deck cleat. Clamp the motor on the transom piece, and that's all. The rope through the chock keeps the bracket from lifting — although it shows no tendency to do so — and, being fast to a cleat, the bracket can't move aft and disengage from the horse. The other end of the line is tied to the motor.



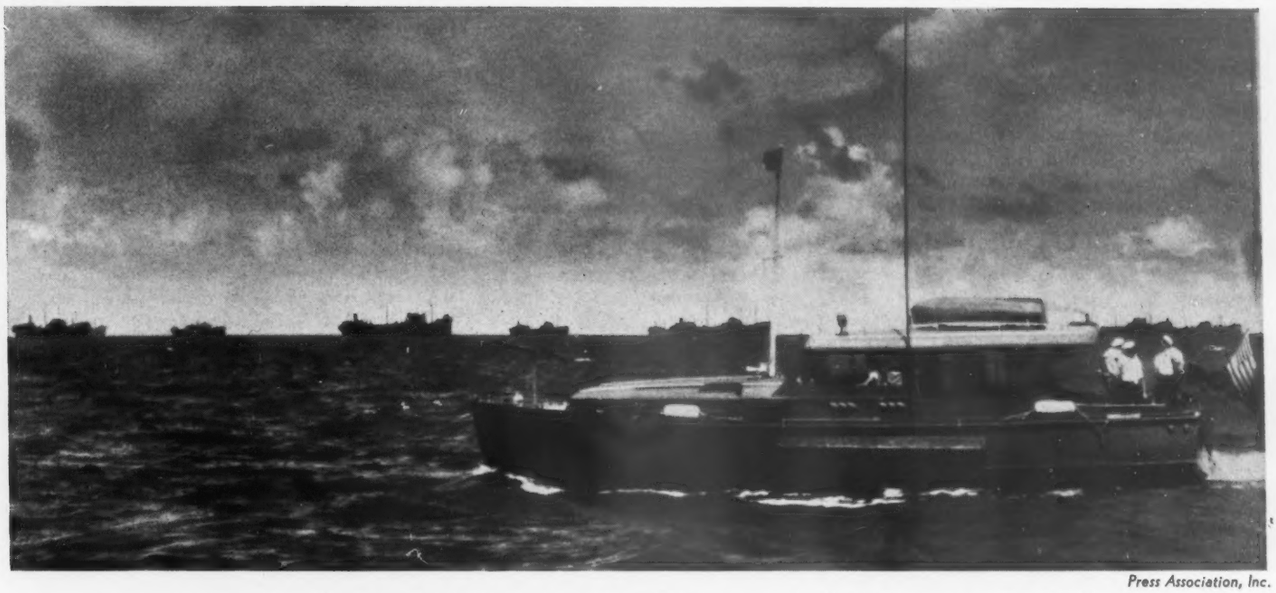
"This one was built out of ⅞" oak for the legs and ⅞" mahogany for the crosspiece, transom piece and bracings, drilled and dowelled together with Cascamite. It seems to be about as light as is practicable with a 40 pound 3.3 hp. motor. I've given no dimensions, because they'd vary with every boat, but the idea ought to be so clear that anyone could build it to fit his job. Also, if we were doing it over, we'd hinge the legs so the whole device could be folded for stowing."

It seems to me that Bill is entitled to a rising vote of thanks.

▶ If any of my readers have any pet schemes anent canvas tents, awnings or doghouses, please send me some sketches and descriptions as I want to get together the best thoughts on the subject. There is still plenty of room for improvement in this category.

I would also like to hear any experiences with dry rot and its treatment.

HAM DE FONTAINE



Press Association, Inc.

Former cabin cruisers, once devoted to pleasure and sport fishing, are now hunting for bigger game. This C.G.R. vessel, complete with sub-machine gun and depth charges, makes a final check up of an outward bound convoy

WITH THE U. S. COAST GUARD AUXILIARY

▶ Some two years ago yachtsmen residing in the Third Naval district began to hear a lot from Lieut. P. D. Mills, U.S.C.G., who told them enthusiastically about a congressionally authorized organization of yachtsmen which was to be set up under the name of the U.S. Coast Guard Auxiliary. The lieutenant's enthusiasm was contagious, and by the time the actual formation of the organization took place he had won the enthusiastic support of a majority of the pleasure boat operators in the District. But he had not convinced them all that such an organization was either feasible or desirable, and as a result the first year's growth of the CGA, while encouraging, was not as rapid as Lieut. Mills felt it should be. He kept working away, enlisting support of increasing numbers of experienced men to head divisional and individual Flotilla groups. Flotillas began to grow in size; more and more boats were seen with the CGA flag at their masthead. Then came Pearl Harbor — and the Auxiliary came of age.

Today Mills is a Lieutenant Commander, and the Auxiliary in his District numbers over 5000 men and a fleet of some 3000 boats. It is, in all probability, the largest and most active CGA group in any Naval District in the nation. Whereas the number of boats which are on patrol 24 hours of the day, seven days a week, falls under the head of restricted information, it can be said that the total is astonishing. Much of the credit of the operation of the present organization in the Third Naval District is due Commodore Randolph E. Tyrrel and his aides who include, among others, J. Duffield Prince, Robert H. Wessmann, Wesley E. Morse and Arthur Middleton, former national chief commander of the U.S.P.S.

In addition to developing a highly efficient staff organization, Lieut. Commander Mills and his fellow officers have done a first rate job in creating a special unit to handle "shore operations." This unit, under Vice Commodore Wessman, has its own art-editorial staff and printing shop, which turns out "Over the Bow," instructional booklets, and a wide variety of forms and organizational letterheads.

"Summer operations have definitely proved the value of the Auxiliary," said Commander Mills in discussing plans for 1943. "Recent legislation which has broadened the powers of the Coast Guard Reserve to enlist yachtsmen as temporary members thereof has made the work of the patrols more effective, and has resulted in a closer knit organization. Whereas winter operations will be somewhat limited as a result of weather restrictions, it does not indicate that patrols will cease. Operations will continue on schedule.

"I am particularly concerned about the educational phase of Auxiliary activities for, whereas excellent work has been done, there is an increasing need for more practical instruction — and actual application of the subjects which have been covered. I therefore urge every Auxiliary member to devote just as much time as he can to those subjects in which he, better than any one else, feels that he is deficient."

▶ "Over the Bow," published for the Auxiliary, Third Naval District, draws its readers' attention to the following new instruction material which may be obtained from the C.G.A. Press, 210 Fulton St., N. Y.:

Manual of Information for Auxiliarymen in CGR (T) (10¢); U. S. Coast Guard Reserve Regulations (25¢); Law Enforcement (10¢); Violation Reports (10¢); Reference Questions for Navigator (10¢); Military Law (5¢).

A new publication covering Coast Guard Regulations and a series of First Aid pamphlets will be ready shortly.

▶ For the past few months there has been considerable confusion as to what flags to fly when on CGA boats. The question has been fully answered in "The Norwester" (Thirteenth Naval District). "When checking in at a Base," writes *The Norwester's* editor, "it is necessary that the Auxiliary vessel secure a Coast Guard ensign. This is the official recognition flag and must be flown at all times when on duty, day or night. These flags are to be returned to the Base when signing off patrol." When we are at war, it is better to fly the American Ensign rather than the yacht ensign when the Coast Guard Auxiliary flag is being flown, and the latter is flown only when an Auxiliary member is aboard. Neither the yacht ensign nor the Coast Guard Auxiliary flag are to be hoisted when the Coast Guard ensign is aloft.

"There has been a great deal of misunderstanding," continues *The Norwester*, "regarding the method of repairing damage sustained by Auxiliary vessels while on active patrol duty. It must be remembered, first, that the Coast Guard is responsible only for that damage caused by reason of the patrol duty performed and is not responsible for the normal wear and tear on the equipment. It is an absolute requirement that if any damage is sustained by a vessel while on patrol duty it must be reported to the base of operation when the boat returns from patrol so that the base commander may make an investigation and notify the District Coast Guard Officer of the extent of the damage and the cost of the repairs. If it is his decision that the responsibility rests with the Coast Guard, the vessel will be repaired at Government expense. Each Base Commander has a sample letter which is the form to be used in reporting damage to vessels while on patrol. It is the responsibility of the individual Auxiliary member to see that this report reaches the District office."

▶ Chief Boatswain Fred E. Stebbins of the

Chicago district is the author of a conveniently compact booklet entitled "The Long and Short of Piloting" which should be a valuable addition to every Auxiliaryman's library. The price is a mere 20 cents (proceeds go to the Welfare Fund) and it can be obtained from US Coast Guard, 610 South Canal Street, Chicago.

▶ Harold T. ("TNT") Smith is the newly elected Commodore of the Auxiliary in the First Naval District (Boston). There are fifty-eight Flotillas in this district, with a membership in excess of 2500. In addition to this number, there are three Flotillas, with a membership of 110 men, made up entirely of fishermen. These members are doing official and unofficial patrol work at all times in connection with their regular fishing activities. An additional Flotilla of sixty members has taken over the Beach Patrol, and maintains 24 hour lookout watches in its area.

At a meeting of the Division Captains and Flotilla Commanders of that District, a suggestion box was set up, and resulted in a flood of practical suggestions for the betterment of Flotilla operations. One of the most interesting was from Commander Lerner of Flotilla 502. "In our Flotilla," said Commander Lerner, "one member is appointed each day of the week to act as 'Officer of the Day.' These officers have the responsibility of seeing that each days' patrol is covered. This plan takes the burden off the Commanders and gives the members who take the assignment a feeling of responsibility and interest that they otherwise might not have."

▶ Lieutenant Commander G. A. Littlefield is the new Director of the CGA in the Norfolk (5th) Naval District. Commander Littlefield was formerly Director of the Auxiliary in the Seventh Naval District. He has had eighteen years' service as a commissioned officer in the Coast Guard.

▶ From *The Stand-by*, the Auxiliary publication of the 11th District, comes a report of the "Catalina Task Operation" — a fleet maneuver encompassing 109 boats and over 400 men. The objective for Auxiliary boats from adjacent ports was Catalina Island, and Commodore Boylan has been the recipient of much praise for his skilful execution of the operation.

▶ Up to three months ago there were but four active flotillas in the Eighth Naval District, all New Orleans boats and members. Today there are sixteen Flotillas operating in the District. Credit for the organization and activation of these new Flotillas is due Lieutenant (T) George J. Delacroix, USCGR, assistant Director of the District.

▶ Since that fateful morning of December 7th, safeguarding bridges and trestles of every description has been the constant concern of every branch of the nation's armed forces. Their importance is self-evident; they are prime targets of saboteurs. Auxiliary members, particularly those located in areas containing vital waterways, have been repeatedly instructed to keep them under constant surveillance. From Captain Stephen S. Yeandle of the St. Louis Coast Guard district comes word that, in his Naval District, owners or operators of river vessels who navigate, moor or anchor near bridges which have been designated as "restricted" by the United States Coast Guard face the forfeiture of their vessel, $10,000 fine and a ten-year prison sentence.

▶ "Whenever a Coast Guard Captain of the Port finds that the operation, navigation, anchoring or mooring of any vessel near a bridge endangers the bridge, the vessel or a waterfront facility," Captain Yeandle said, "he may, with approval of the proper Coast Guard officials, establish restricted areas in the waters proximate to the bridge. No vessel shall then navigate or moor in such areas except under such conditions and restrictions as Coast Guard authorities may prescribe. Areas so established and channels through such areas shall be appropriately marked with conspicuous signs or buoys. Anyone who ignores these restricted zones faces prompt punishment."

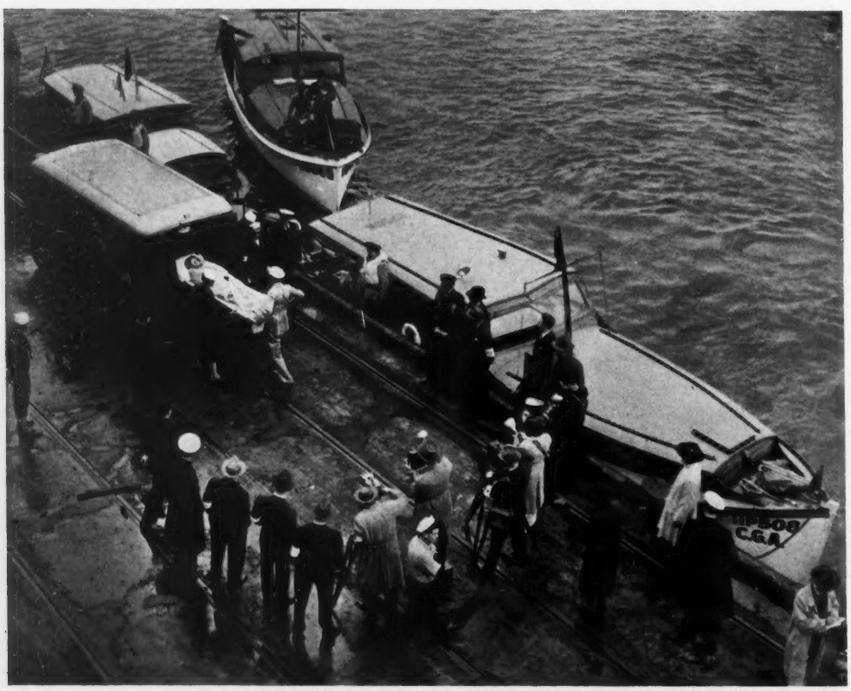
▶ The members of the North Jersey division of the CGA which was chosen to conduct maneuvers off Sandy Hook have been the recipients of high praise from local officials. The officers and crews put their 25- to 50-foot craft through various formations. Boats from the Leonardo, Red Bank and Keyport flotillas and their crews were chosen from 400 boats and 1500 men of the North Jersey division to make the demonstration.

▶ Flotilla 2, 1st Division of the Chicago District, has achieved an almost unbeatable record of achievement in the past eight months. In addition to an astonishing variety of activities — ranging from saving six lives to checking 182 boats for Use Tax Stamps — they enlisted 72 new members, graduated 32 men as navigators and 10 as signalmen!

▶ Lieutenant Commander C. A. Anderson, Director of the Auxiliary in the Sixth Naval District and a commandant of the Coast Guard picket patrol based at Charleston, has advised all members that there will be closer functioning between the Auxiliary and their vessels in connecton with the work done by the picket patrol. It promises a busy winter for CGA members in that locality.

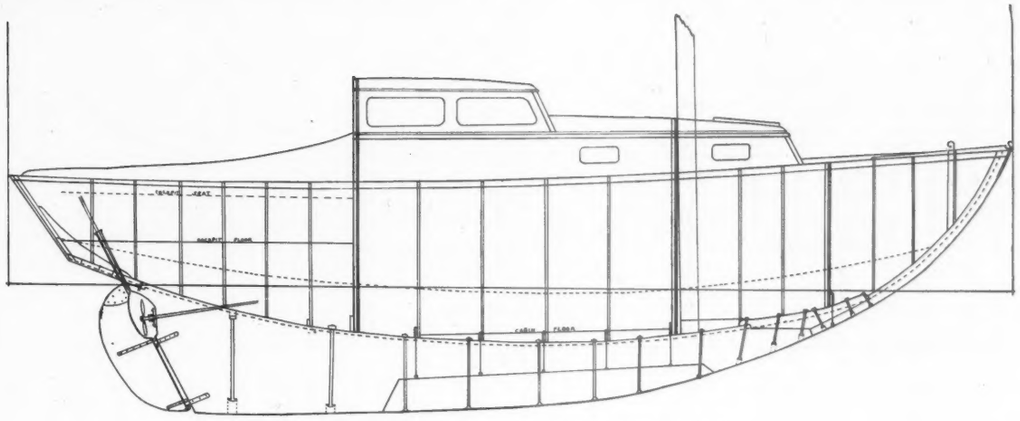
▶ One of the most interesting phases of the Coast Guard Auxiliary in the Connecticut area is the Patrol which is manned by members of the student body of Yale University. William P. Arnold, Jr., one of its members, describes it as follows:

"The idea of the Yale Harbor Patrol was conceived by the Undergraduate Air Raid Precautions Service to relieve the Coast Guard Auxiliary which was undertaking to patrol New Haven Harbor. Yale crews have enabled the Auxiliary to operate around the clock seven days a week. We crew the patrol boat weekly from 6:00 p.m. to 6:00 a.m., dividing this time into two six-hour watches. There are two men to a crew serving under a skipper furnished by the Auxiliary. Thus four Yale men a night see duty. So great has the interest been in doing this work that we have had to institute a week-on week-off system to double the number of men on active duty. A reserve schedule of 60 men is made up to insure full crews in case of absences. That makes 100 men on our lists, but that figure is only about half of the number who applied for the work."



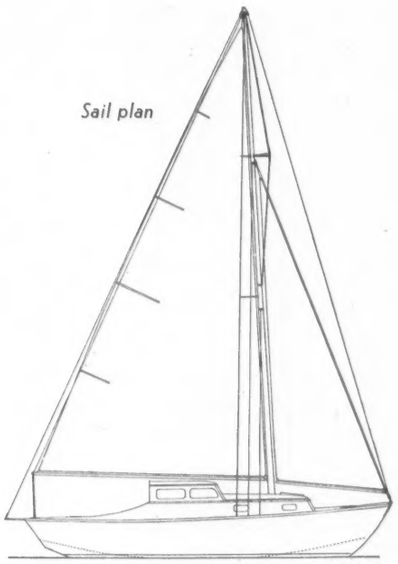
Acme Newspictures, Inc.

Auxiliary boats played a prominent role in the simulated air raid held in Camden, N. J., a few weeks ago. Here a C.G.A. vessel stands ready to evacuate a bedridden woman. This is but one example of the diversified activities of C.G.A. flotillas from coast to coast



Inboard profile of the auxiliary cruiser "Purrpoise"

A PLYWOOD CRUISER



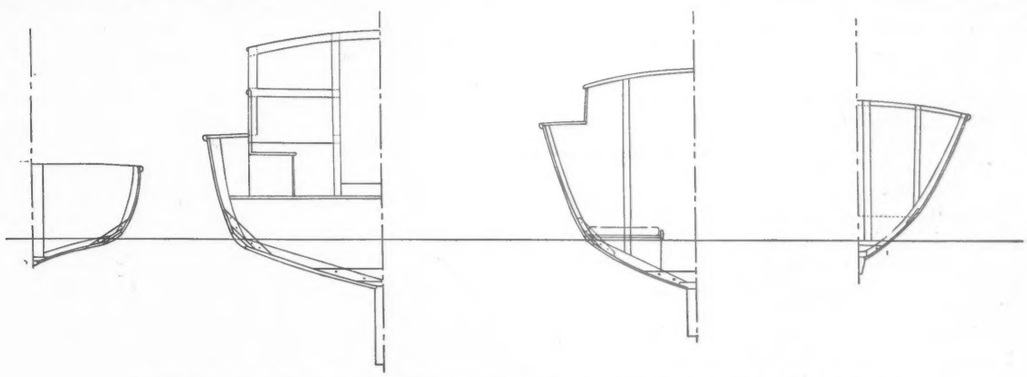
Sail plan

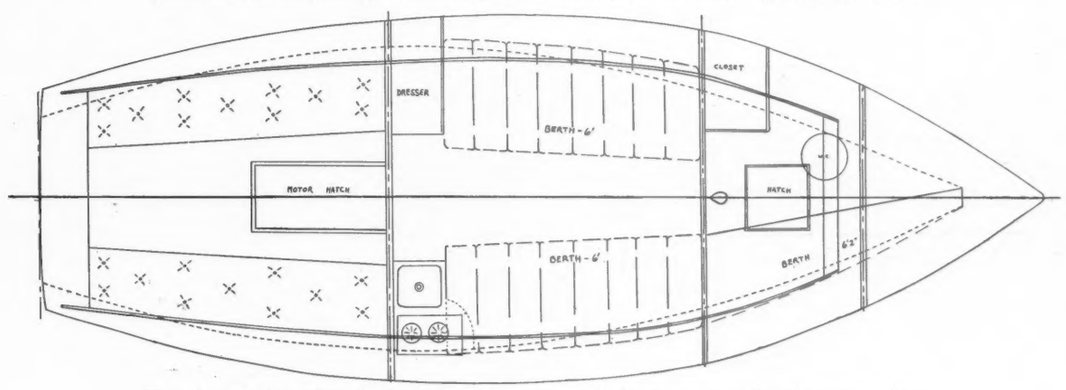
HERE are the plans of an interesting cruiser in which waterproof plywood is used for much of the construction. The boat is from the board of Alexander Knute, of College Point, L. I., by whom she was built not long ago. A photograph of the boat under sail was published in the October issue of YACHTING.

The boat is 23′ 8″ in length over all, 8′ 6″ beam and 3′ 0″ draft. Construction is stout, the keel being of a single piece of selected white oak, sided 5″. Frames are of sawn white oak, spaced 12″ center to center. Bottom planking is of Weldwood, $\frac{5}{8}$″ in thickness, and the topside planking is of the same material, $\frac{1}{2}$″ thick. Deck and cabin top are also of plywood, canvas covered. The sides of the cabin trunk are of $\frac{7}{8}$″ mahogany, natural finish. The bulkheads are each of a single sheet of Weldwood and most of the joinerwork is also of the same material.

The new cruiser has been named *Purrpoise* and she has been fitted with a modified Austin engine, installed under a flush hatch, as auxiliary power. She carries 1100 pounds of iron on her keel and has approximately 100 pounds inside as trimming ballast. The boat is beamy yet sails well close-hauled and comes about with ease. She has a fair turn of speed though not designed as a racer. The mast is 36′ long and the sail area is 209 square feet.

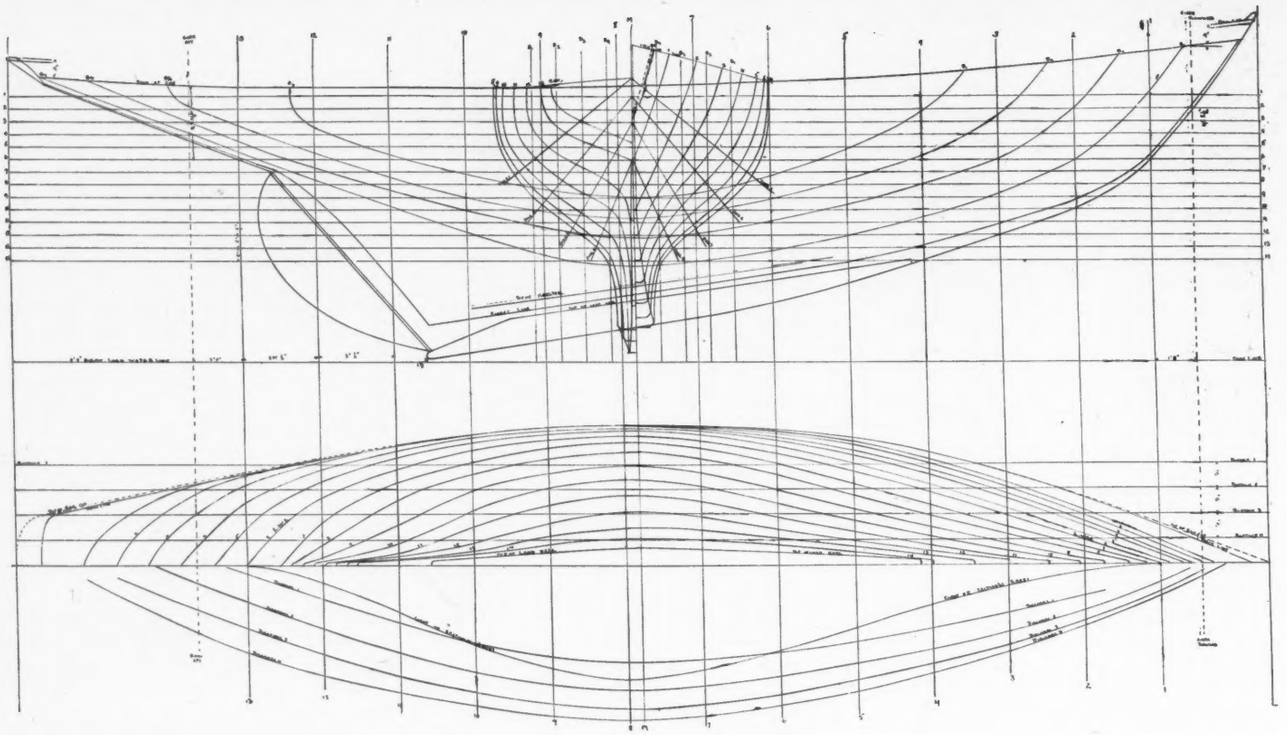
The main cabin has three berths, dresser, ice box and galley. A toilet is placed forward. There is 5′ 10″ headroom under the doghouse.





Typical sections and, below, accommodation plan of the plywood cruiser by Alexander Knute

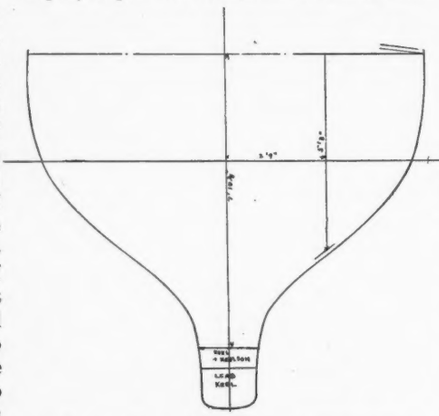
The plans reproduced in this section are the property of the designers under whose name they appear. For further information concerning any design address the naval architect in question.



Lines of a cutter to rate 35 feet under the rule of the Royal Ocean Racing Club

TWO DESIGNS FOR AN OCEAN RACER

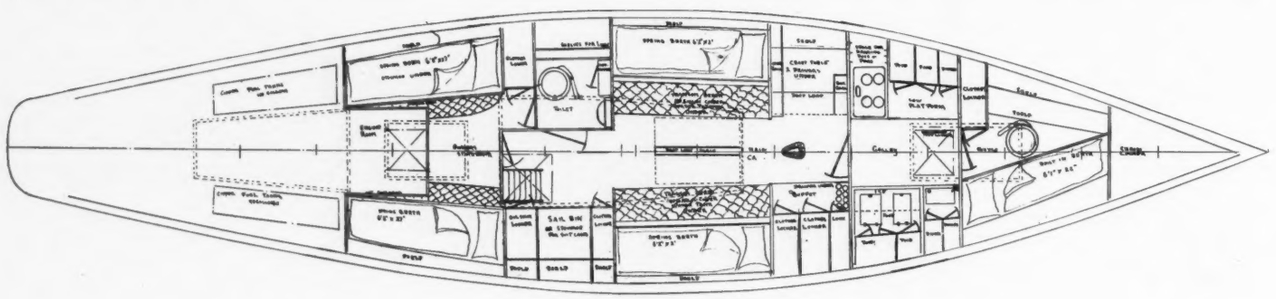
Some time ago, F. Jay Wells, naval architect of New York, worked out a design to fit the rating rule of the Royal Ocean Racing Club, of England. This rule took a number of factors into account, not only the length, depth, beam and measured sail area but girth measurements — so long a favorite with British rule makers — and also freeboard. The rule was that the rating was .15 times the product of L and the square root of the measured sail area, divided by the square root of beam and D; to this figure was added .2 times the sum of L and the square root of the sail area. L was "taken between the points, forward, where the girth, taken vertically, from top of covering board to top of covering board, or to a freeboard height equal to one-and-a-half times the freeboard at D — whichever is the less — is equal to one-half the extreme beam; and aft, where the girth, from top of covering board to top of covering board, is equal to three-quarters of the extreme beam." There were penalties for low freeboard, which were added to L. Depth was taken from top of beam at side to top of keel, but if this measurement was more than 150 per cent of the quarter beam depth, depth was taken as one-and-a-half times the quarter beam depth. One-fifth the height of the bulwarks was added to D. Maximum draft was .16 l.w.l., plus 2 feet.

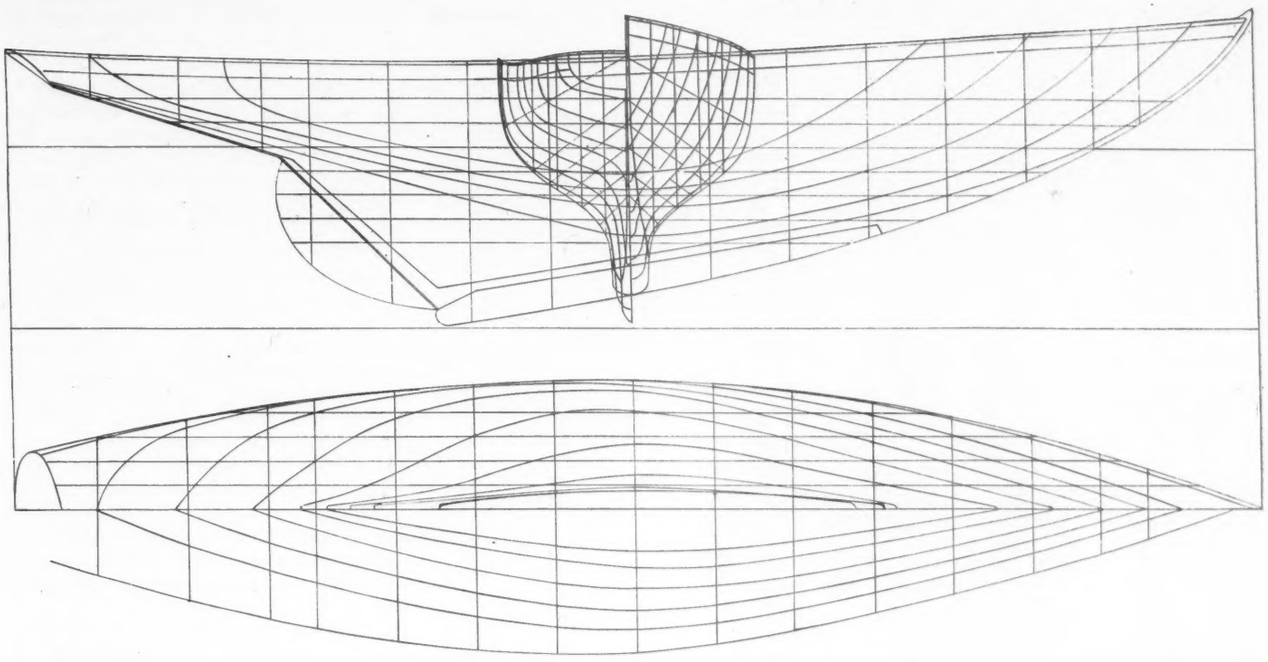


Midship section, showing depth measurements. Below, cabin plan

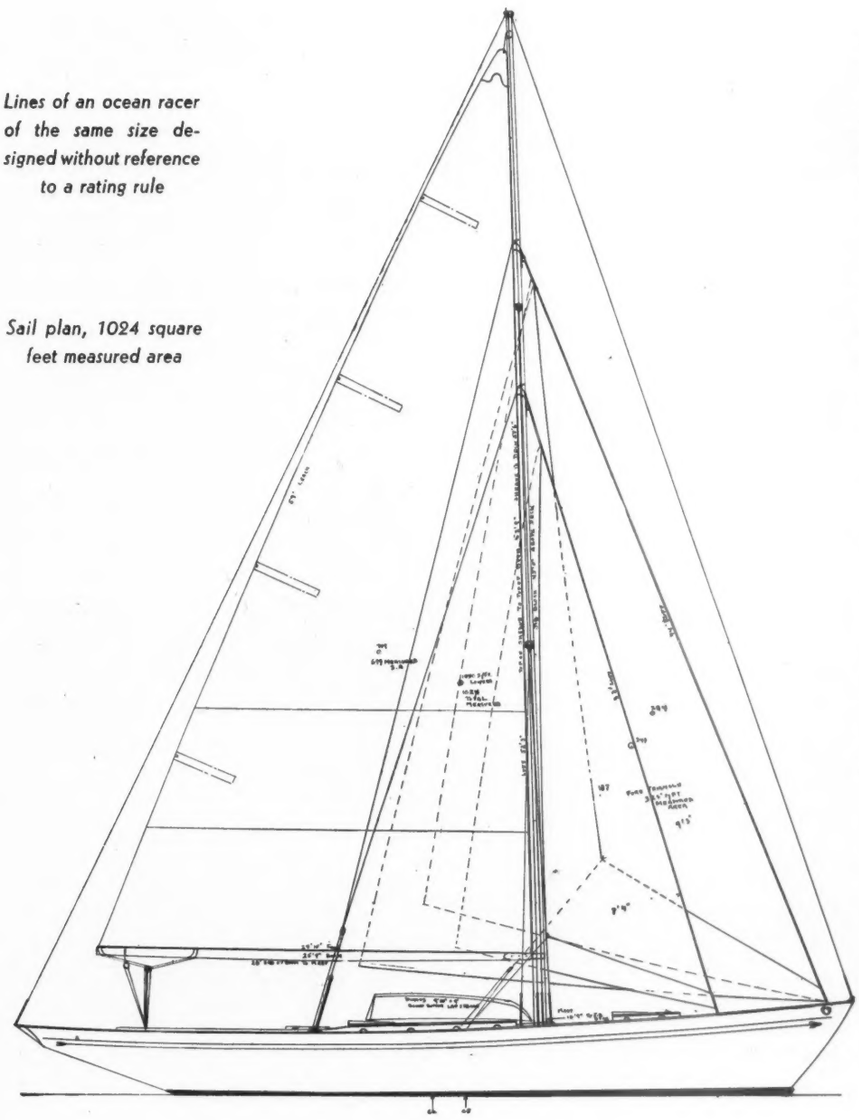
With D as a divisor in the rating formula, the tendency of a designer is to make the quarter beam depth amidships as great as possible, which naturally makes for a large midship section and fine ends. It also tends to encourage a wood keel that is deficient in depth, to get the measurement depth amidships as large as possible. This does not encourage the construction of a stout backbone, a plank keel not being the best thing on which to hang a heavy lead keel, if the yacht is to stay tight when being sailed hard.

A study of the plans of the boat designed to fit the rule will show rather a large midship section and extremely fine ends. The forebody, in particular, is decidedly on the lean side, all of the water lines below the load line showing a hollow. Aft, the sections are rather V-shaped, with a slack bilge, the whole model suggesting a lack of stability which would be in evidence in carrying sail in a breeze.





Lines of an ocean racer of the same size designed without reference to a rating rule



Sail plan, 1024 square feet measured area

Some time after working out this design, Mr. Wells turned out another boat of about the same size, unhampered by the restrictions of any such rating rule as controlled his first design. This yacht is a much more healthy type. Her sections are firmer, her water lines more shapely and she looks much more able. Her buttock lines are a great deal sweeter, rising less steeply aft and sweeping from end to end in a fair, continuous curve. The ends are fuller than in the first design and the lump amidships has disappeared. She should be as fast or faster than the other boat and should be much more comfortable at sea. She is a bit shorter on the water line and a bit longer over all, her ends being of much sweeter model and better balanced than those of the rule boat. Beam and draft are both slightly less but she should be able to carry sail when the other boat is beginning to labor.

The dimensions of the two boats are as follows: Rule boat, length over all, 50′ 2″; length on the water line, 36′ 6″; beam, extreme, 11′ 1″; draft, 7′ 10½″. Her L, according to the rule, is 40′ 1″ and her depth 7′ 10½″. Under the rule, she rates at 34.984. Measured sail area is 1024 square feet.

The later design is 52′ 5″ in length over all, 35′ 8″ in length on the water line; 10′ 9″ extreme beam and 7′ 5″ draft. Her displacement is 29,500 pounds and the weight of her lead keel is 13,500 pounds. All in all, she is a better all around boat than the other.

The cabin plan, which should work out well for either design, is more or less conventional — which means time tested — and shows accommodations for six adults aft and a paid hand forward. Plenty of stowage space is provided. A 30 hp. four-cylinder engine, with Gray V drive, is installed aft. The sail plan shows the usual outfit of sails, with a variety of headsails, and the rig is short on the base line and fairly lofty.

Rating rules often do not produce the type their sponsors desire. Too often a poor model results.

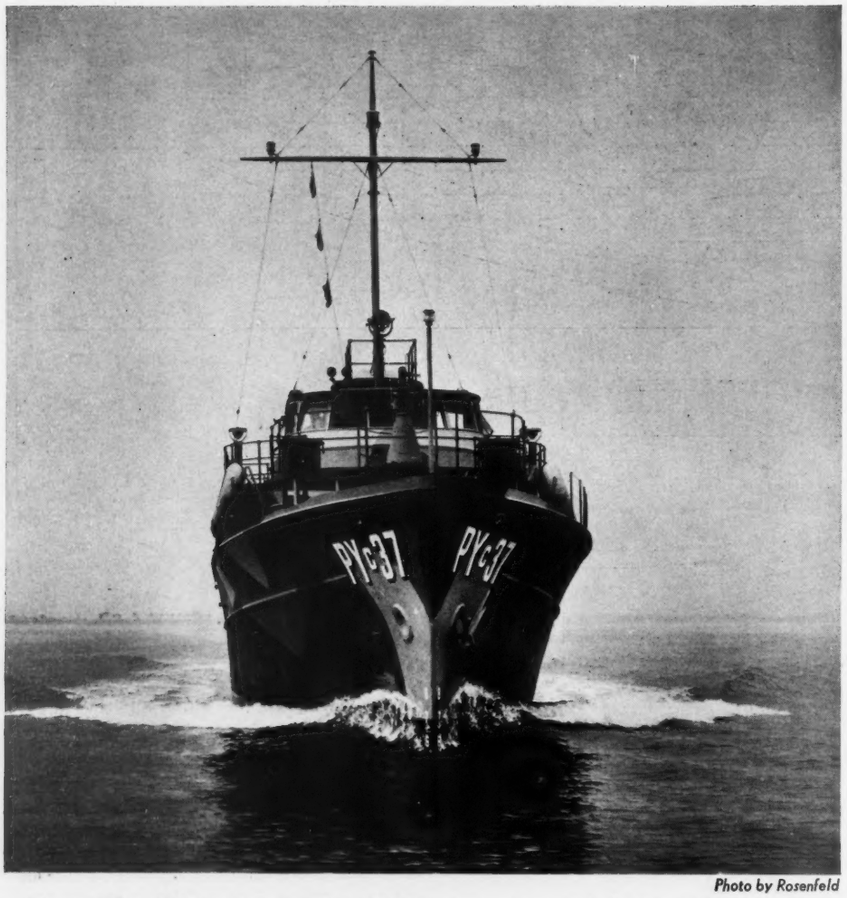


Photo by Rosenfeld

Now on Naval duty! Another view of the "Haida," designed as a yacht by John H. Wells for Max C. Fleischmann and built by Robert Jacob in 1941. Before she could be commissioned, she was taken by the Navy and converted for patrol duty at her builder's yard

THE MONTH IN YACHTING

SOUTHWESTERN SKIPPERS TASTE OCEAN SALT

▶ As the climax of a restricted but active season of inland racing, San Diego yachtsmen staged what may be the longest and largest wartime race on the West Coast. No less than 51 craft were checked off by officials as they powered through the submarine net into open sea — 37 of them sail, the rest private power boats on patrol duty. The event was the annual handicap race around Los Coronados Islands, Mexico, and return, a distance of 31 miles. Open to all seaworthy craft belonging to recognized yacht clubs, the race is one of the coast's oldest classics, dating back some 55 years to the founding of San Diego's first yachting organization. Records list Vic Doyle's old gaff-rigger *Trilby* as the most habitual winner. The flat, 40-foot sloop has broken her own record several times and still holds the present one, having made it in 1937 when on the "lee side of her 25th birthday."

This year's race was different, however, due to war conditions. The *Trilby* and the Stars were advised to stay home, and the only craft without auxiliary engines were the perennial PC's. The time limit was set at 5:30 p.m. and all boats not around the island by two o'clock were ordered to return. Instead of the usual start from historic Ballast Point, the narrow entrance to the harbor, the start was made two miles at sea outside of defense areas. Lastly, the entire flotilla was ordered to leave the docks of San Diego Yacht Club at 7:30 a.m. — or else.

The race started promptly at 9:30. No boats trailed and it was one of the closest starts ever made, but one thing was lacking — the wind. A flat calm prevailed and steerage way was mostly wishful thinking. Several yachts crossed and recrossed the line in a vain effort to stem the tide. For a full hour, the starting buoy threatened to overtake the entire fleet. Several skippers and crews went swimming in a last attempt to bring on the breeze, but even this didn't work.

An interesting phenomenon was that the heavy boats managed to keep up with light weather racers until the wind came up! PC's, yawls, sloops and schooners were evenly distributed for the first three hours. Finally, a mile away, a steady ripple approached. Soon the heat was gone; sails filled reluctantly; the light boats became supercharged with life. In half an hour, the fleet was strung out for two miles.

Snatching the lead and gaining steadily for the duration of the race was Walt Trepte's Eight-Metre *Angelita*, which finished first. Other yachts passed and repassed as the wind freshened. George Jessop and Samuel Dauchy's Rhodes cutter *Varya* finished second, and Ed Peterson's PC *Ni Ni Nie*, third.

On corrected time, however, victory went to the small cruising sloop *El Sueno*, sailed by Russ Bonner into sixteenth place on elapsed time, and rating a 40 per cent handicap. Many of the boats, slow in starting, would have made knots beating back against choppy seas but they were forced to turn back by the two o'clock rule. Those finishing, in order of corrected standings, were:

El Sueno, Russ Bonner; *Ecume*, Don Burnham; *Seminole*, Cal Johnson; *Kaihala*, Huston Harvey; *Aafje*, Lt. Carl Bowman; *Annette*, Frank Kelley; *Blue C*, James Witherow; *Meropi*, Lt. James Woodworth; *Mickey*, Lt. Larry Barr; *Spray*, Al Ellmers; *Varya*, George Jessop.

Twelfth berth went to Ed Pitt's *Sunboat;* next came *Angelita*, Walt Trepte; *Angela*, Dr. G. L. McClintock; *Maribel*, Frank Evenson; *Ni Ni Nie*, Ed Peterson; *Anahuac*, Art Heilbron; *Ay Ay Aye*, Frank Weisgerber; *Medie*, Major Edgar Gott; *Cucaracha*, Mrs. Jean Godwin.

Bud Waterbury's Rhodes sloop trailed behind the mixture of R-boats and Six-Metres, followed by Tom Eckles *Valero;* Ed Wellington's *Betty;* Herb Sponholz's *9-A-5;* C. L. Larson's *Friendship* and John Fox's PC *Zorra.*

CURTIS ZAHN

THE NAVY WAS EVER THUS

▶ The following extract from "The Journal of His Majesty's Ship *Leven*" (Captain William Fitz William Owen), dated August 10th, 1822, at Woolwich, England, reveals that naval matters, like the stars in the heavens, are timeless. We quote:

"On the 10th day of August, 1821, Captain Owen received his Commission from the Lords of the Admiralty to command the *Leven*, which ship had just been paid off the day before having been employed for the last three years in the Survey of the Cape DeVerd Islands and a part of the Coast of Africa. It will be quite unnecessary to detail our proceedings during equipment. Suffice that we were informed it was the intention of the Admiralty to employ the *Leven* to Survey the East Coast of Africa from our settlements at the Cape of Good Hope northwards, including Madagascar, and the circumjacent islands. Our attention therefore was directed to the completion of our Equipment with reference to the particular service on which we were to be employed. In this we were left entirely to our own judgment, even to the points of coppering, docking and repairs, in all which we were informed at every turn and in every transaction how very injurious to the public weal were our extremely burdensome and unwieldly Establishments in the civil departments of the Navy meant it is true in the first instance to facilitate, expedite, and perfect the equipment of His Majesty's ships for any specific service, but in modern practice

effectual only to obstruct and retard such equipment. On the side of the Admiralty everything was ordered that Captain Owen applied for. On the side of the Navy Board nothing was granted they could find a pretext for . . . refusing and the most simple demands were not complied with ever in less than weeks."

H. C. PERRIN DIES

▶ Howell C. Perrin, of Larchmont, N.Y., for several years Recorder of the Yacht Racing Association of Long Island Sound, died in New York on October 25th. He was 77 years of age.

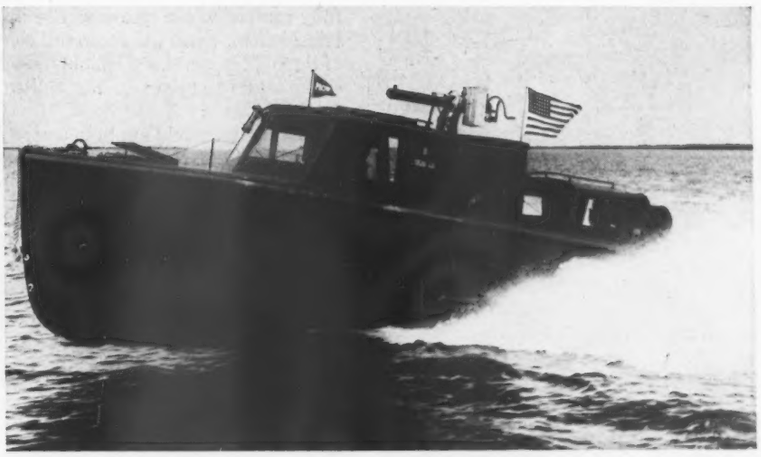
An active yachtsman, he took part in Bermuda races before the last war and was a member of the crew in many long distance events on the Sound and in coastwise waters. He raced his sloop *Nike* in the Handicap Class for a number of years before he gave up active racing. He was secretary of the Handicap Class for several years and also handicapper of that organization. Previously, he had been chairman of the race committee of the Larchmont Yacht Club for a number of terms.

A good sailorman and a most likable person, he will be greatly missed.

NAVY AND COAST GUARD TIGHTEN COMMISSION REQUIREMENTS

▶ Official orders from Washington have caused a tightening of requirements for commissions in the United States Navy and Coast Guard. In the Coast Guard, those seeking officer commissions for general duty with the Regular Reserve must possess ocean licenses; written examinations have been eliminated. The Navy has rescinded its previous order which waived a college degree as a requirement for experienced boatmen to serve aboard vessels in local defense areas.

According to the Coast Guard, the only candidates to be recommended for original commissions for general duty with the Coast Guard Reserve will be men who have been licensed in service as masters, mates, or engineers on ocean going vessels of the United States, or who have had previous satisfactory commissioned service in the Coast Guard or Navy. Previously, candidates who had studied celestial navigation and other kindred subjects and who fulfilled the physical requirements were allowed to take written examinations in order to receive commissions.



"Prowler 2," a 30-footer of 10 feet beam, was built by Forest E. Johnson of Miami. Two Chrysler Marine Royal Eights, of 147 hp. each, drive her at a 36 mile pace

For the Navy's service aboard vessels in defense areas, candidates for commissions must now possess a college degree. The previous age limits, 22 to 45, have been narrowed, also, and the new regulations provide that officer candidates must be between 22 and 38 years of age. Physical requirements have been stepped up, with a minimum height of 5 feet, 5½ inches now required instead of 5 feet, 4 inches. A wide deviation on weight still is allowed, if such weight is proportionate to the applicant's height.

▶ College graduates who have not been able to meet the rigid physical qualifications for the Navy's Class V-7 may now be accepted in a V-7 Special Service classification and win their commissions as ensigns in the United States Naval Reserve. There has been no relaxation of the physical requirements for the General Service classification of V-7. The Navy needs men in this group as well but, to secure the services of men with unusual capabilities who do not quite come up to the General Service requirements, the new Special Service classification has been instituted.

Both of the V-7 classes are open to college juniors and seniors as well as to college graduates, but the Navy has urgent need for men who have college degrees to enroll at once so that they will be eligible for training beginning in December, 1942, and in January, 1943. There is a particular need at this time for men having degrees in electrical engineering.

Applicants for enlistment in either of the classes of V-7 must be male citizens of the United States, must be not less than 18 years of age and must not have reached 28. College undergraduates must be unmarried and must agree not to marry prior to completion of midshipman training. College graduates who are married and who meet all educational qualifications will be accepted.

For Class V-7, General Service, applicants must be not less than five feet, five and one-half inches and not more than six feet, four inches in height. Vision must be 18/20 correctable to 20/20 in each eye and must have good color perception. Weight must be in proportion to height but not less than 132 pounds. The applicant must have 20 serviceable permanent teeth. For Class V-7, Special Service, applicants must be not less than five feet, four inches or more than six feet, four inches in height. A 12/20 vision in each eye correctable to 20/20 is permitted and a minimum weight of 124 pounds, if in proportion to height, is allowed. Deficiency in color perception is allowed. The applicant must have 18 sound vital teeth.

▶ For both classifications, applicants, if graduates, must possess a degree from an accredited university or college. Undergraduates must be regularly enrolled, full time juniors or seniors in accredited universities or colleges. Transcripts of credits must show successful completion of two one-semester courses of mathematics of college grade. In addition, a course in trigonometry must have been completed satisfactorily either in secondary school or college. Applicants for the Special Service classification must possess, or be candidates for, a baccalaureate degree with major in engineering, naval architecture, mathematics, physics, electronics, meteorology, industrial management or business administration. Students majoring in Japa-

A shallow draft boat built by Paul Prigg for use in such places as the Everglades. She is extremely light and is driven by an aircraft motor and propeller. She will be useful for rescue service

Courtesy of U. S. C. G. Academy

Emil ("Bus") Mosbacher, Jr., high point scorer in Brown's Invitation regatta which preceded the Schell Trophy event by a day. With Warner Willcox, he helped land Dartmouth in first place

nese, Chinese, Russian or Malaysian, or other fields of special value to the Naval service, may be accepted in limited number upon prior approval of the Bureau of Naval Personnel.

Those who are accepted will be enlisted as apprentice seamen. After one month of indoctrination training, those who have successfully completed the course will be appointed midshipmen. Upon the successful completion of three more months of training, they will be commissioned ensigns in the United States Naval Reserve.

Candidates should apply in person to their district office of Naval Officer Procurement.

BRUCE FAHNESTOCK KILLED IN NEW GUINEA

▶ Bruce Fahnestock, who has been serving as a lieutenant in the U. S. Army in the South Pacific theater, was killed in a flying accident which occured somewhere in New Guinea early in October. His untimely death came as a great shock to his many friends and shipmates in many ports.

Mr. Fahnestock is best remembered for his two voyages to the South Pacific in company with his brother Sheridan. On their return from their first trip in 1934, of which Dennis Puleston was a member, they wrote the story of their expedition in a book entitled "Stars to Windward." Their second expedition, in 1940, was more ambitious. Their vessel was a 173-foot three-masted schooner, and their itinerary was an extensive one. After completing their work, and delivering their specimens to Australia for shipment back to the United States, their vessel was lost on the Great Barrier Reef. Fortunately no lives were lost. After Pearl Harbor, both Bruce and Sheridan joined the Army and were sent back to the South Seas on a special mission for which their knowledge of the area fitted them.

FUEL FOR THE YACHTSMAN

▶ From Vivyan Hall, Chairman of the Cruise Committee of the American Power Boat Association in Miami, comes word of the new rulings regarding fuel for the yachtsman.

As of November 22nd, the maximum allowance, which heretofore has been 250 gallons for a period of six months, will henceforth be 125 gallons for three months. This is two gallons per horse power instead of four, and it is important to note that these quantities apply to Diesel fuel as well as to gasoline. Charterers taking yachts for longer than one week must apply to their local board for the fuel to be consumed during the period of the charter. The ration board may allow up to 125 gallons, which can be used up as fast as the charterer likes; for less than one week, the charterer must draw on the owner's quota.

Mr. Hall states that he is advised that the above regulations will apply to all parts of the country, but suggests that readers check the above findings with their local boards.

"Papa, something's wrong in here!"

Courtesy of U. S. C. G. Academy

John Burton, who learned his sailing on Lake Minnetonka, captained a crew on the winning Harvard team, and tied for individual high score honors

HARVARD WINS THE SCHELL

▶ Not in seven years of college dinghy racing under the Inter-Collegiate Y.R.A. banner has a major regatta produced keener competition than prevailed when the Harvard Y.C. crews topped the field of 15 colleges on the Charles River November 1st, in the second annual sailing for the Erwin H. Schell Trophy, the No. 1 event of the 1942 fall season.

When the results were tabulated, the first place Crimson team had 72 points while Dartmouth, in sixth berth, had totalled 61. Thus, six of eleven finalists were separated by a margin of only eleven points as the scores in the afternoon, following a morning qualifying round, read: Harvard, 72; M.I.T. and Holy Cross, 70 each; Yale, 68; Coast Guard, 62; Dartmouth, 61; Northeastern, 54; Brown, 49; Boston College, 48; Trinity, 31; Williams, 24.

The achievement of the Harvard sailors in

(Continued on page 76)

CHAMPION SPARK PLUGS

The boating industry and a large percentage of the boating fraternity are now enlisted in the services of the nation.

Today marine engines are piling up more hours service in a month than in an entire season before the war.

As a result, engines are being checked and serviced systematically—spark plugs tested, cleaned, and replaced whenever necessary.

Champion Spark Plugs, always the favorites of marine engine builders, boating enthusiasts and racing champions, are setting new records daily. They are records of dependable performance and long life made in the service of their country, conclusive evidence that Champion Spark Plugs are truly "more vital and more dependable than ever."

TO SAVE GASOLINE • KEEP YOUR SPARK PLUGS CLEAN

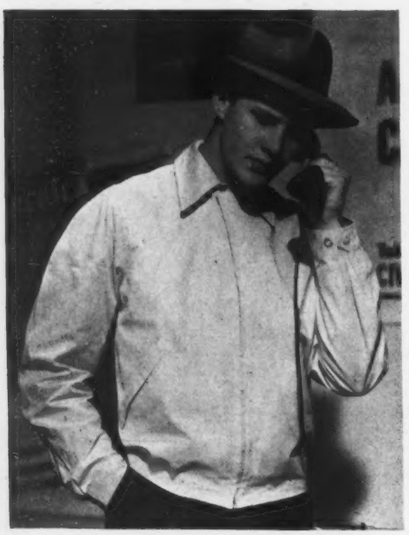
"BEACHCOMBER'S" CHRISTMAS GIFT SUGGESTIONS

Men's Apparel Reporter

SPEAKING OF CLOTHES

TODAY, as never before, winter clothing is of vital concern. Shore based yachtsmen are serving the home front as air wardens or aircraft spotters, while countless thousands will spend their off hours at sea as members of the Coast Guard Auxiliary. All of these duties demand serviceable clothing. Since this must be a practical Christmas, readers of YACHTING cannot do better than to add jackets such as these to their Christmas lists. The following are but a few of the many to be found at your local dealer's. It is suggested that such garments be checked for water repellant qualities.

This "Alaska" model of the well-known Bantamac jackets is now seeing service with the armed forces in sub-Arctic regions. It is made of Bantamac-processed twill with a lining of pure wool alpaca. The hood is convertible and the closure is by both buttons and zipper. There are two breast pockets and two flap pockets; the sleeves are fitted with wristlets. The price is $35.00. Obtainable from your dealer or Marcus Breir's Sons, 1107 Broadway, N. Y. (*See cut, above.*)



A score of fabrics are treated with Zelan, that remarkable substance which impregnates cloth so as to make it water repellent while still porous to air. As a result, Zelan treated fabrics have long been popular with the yachtsman, and particularly those who favor frostbiting and other Arctic activities.

The "Aerojac" jacket lasts through countless dry cleanings. The price is $5.95. From your dealer or David Doniger & Co., 303 5th Avenue, N. Y. (*See cut, lower left.*)

This light-weight ski jacket must have been designed by a gal who had crewed for a frostbite enthusiast. The feminine contingent of YACHTING'S staff put it through every conceivable test, excepting a voyage to Murmansk, and reported that it is the answer to every nautically-minded maiden's prayer.

THE NAVY GAME

LAST year Commander F. G. Emley, R.N., had to put in at an American naval base for repairs. His ship had been seriously damaged so he and his men faced many months of inaction. To help pass the time, they invented a game which they called The Navy Game and it concerns the dangers and hazards of crossing the Atlantic under wartime conditions.

The Navy Game is played with miniature ships on a playboard that reproduces the great circle sailing chart of the North Atlantic. All the authentic terms are used and the more players there are the more exciting the game becomes.

The cost of each game is only $1.00 — or with postage $1.10. Each game sold not only provides amusement to the purchaser but also enables Bundles for America to do more of the work so urgently needed on the Home Front. The Navy Game may be obtained from your local bookstore or direct from Bundles for America, Inc., 681 Fifth Avenue, N. Y.

READY-MADE SHIP MODELS

HERE are a variety of suggestions for your Christmas list for the nautically minded. In this case, they are all ship models, ranging from a strikingly realistic PT boat to the schooner *America*. They are from the shop of the Piel Craftsmen, and are moderate in price. *PT 10*, which measures 15″ by 4½″ by 4¾″, is only $10.00 complete with stand.

The whaling bark *Wanderer*, the schooner *Gertrude L. Thebaud* and the clipper ship *Sea Witch* are but a few of their many models. You will have a grand time with their catalogue which may be obtained by writing LeBaron-Bonney Company, Bradford, Mass.

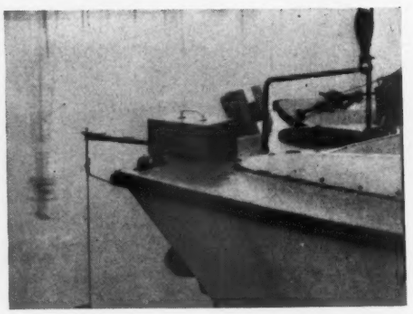
DEPTH WARNING DEVICE FOR SMALL CRAFT

AN ingenious and surprisingly practical gadget called the "Anchor-Watch" is the latest bit of equipment to delight the mechanically-minded skipper. Its purpose, as its name implies, is to warn the crew when their vessel gets into shoal water.

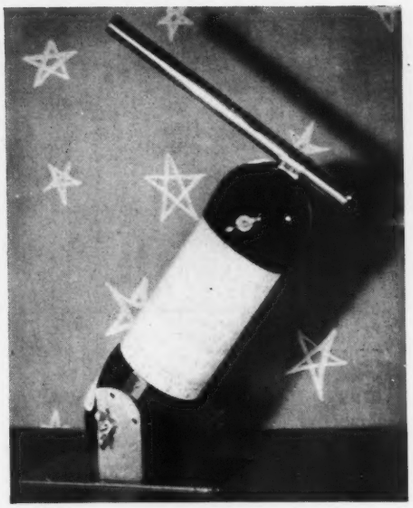
The device is simple enough and consists of two units, the Control unit and the Alarm unit. The former is a small box about 6″ by 9″ by 4″ with attachments for a lead line; this unit hooks to a small cleat (preferably over the stern) on deck or rail, and contains terminals to attach the wires from the Alarm unit. An extension cord will do if one does not care to wire especially for it. The lead line is set at a predetermined depth to allow a safe margin of clearance under the keel. If the boat drifts to shallow water or the tide falls to allow the lead to strike bottom and drag, a contact is made and the alarm sounds. The Alarm unit is a box containing two No. 6 dry cells and a bell, with outside terminals for wiring.

Motion of the boat will not cause alarm if set properly. There is an adjustment screw on the contact rod to control sensitiveness. Lead, line and other attachments stow neatly in the Control unit when not in use.

"Anchor-Watch" has been given thorough trials and it works. Pleasure Craft Supplies, 1110 Bailey Street, Seattle, Washington.



"BEACHCOMBER'S" CHRISTMAS GIFT SUGGESTIONS



A STAR-FINDER WHICH ACTUALLY POINTS THEM OUT

WHILE we were searching out the many navigation courses listed in these columns last month, we ran across a remarkable instrument for locating stars in the heavens. Of real value to professional navigators, both aerial and marine, to students, and to amateur astronomers, the Harvey Pocket Observatory operates so simply that anyone who would like to know the names of the heavenly bodies twinkling overhead can locate many constellations and bright stars after only a few minutes of study.

The instrument actually finds a constellation as follows. The cylinder is tilted to the north by an amount equivalent to the observer's latitude. Once this is done, a time scale on the cylinder is turned until the mark indicating the nearest quarter hour of local standard time aligns with the correct date on a stationary scale. This simple operation takes care of the difference between "sidereal time" and local everyday time which mystifies so many people.

Next, the frightening term "right ascension" is taken care of just as quickly by a rotatable head on the cylinder which is turned to align with the name of the constellation printed on the cylinder.

With the name of the constellation is given the declination of its center, or the distance, in degrees, its center is located north or south of the celestial equator; but these terms need not frighten the most timid would-be stargazer, for there is a clear scale by which the top pointer arm is set. And, after it is set, it points right at the center of the constellation in the sky.

Complete instructions come with the Harvey Pocket Observatory, including sufficient data to locate sixty-four constellations and twenty-four bright stars. To locate other bodies including planets, the *Nautical Almanac* must be consulted for right ascension and declination.

The Harvey Pocket Observatory has innumerable uses for desk study as well as observation. It provides a means of noting the apparent movement of celestial bodies throughout the seasons, tracing the arcs the bodies seem to travel across the sky between twilight and dawn and locating just where on the other side of the earth the "out-of-season" bodies are.

The Harvey Pocket Observatory will make an excellent Christmas gift for any sailor, or for anyone interested in astronomy or aviation. The price is $15.00 and it may be obtained from the Baker School of Navigation, Hotel Astor, New York, or from YACHTING's Book Department.

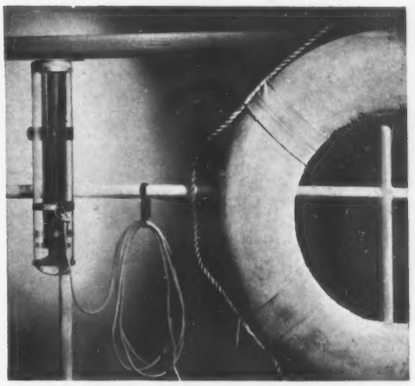
THE SAILOR'S GUIDE

INVESTIGATION proves that there are card wheel calculators for almost every purpose, and the newest of these is properly labelled "The Sailor's Guide." Intended for study and use by neophytes of Sea Scout age, it's our suspicion that quite a few oldsters will enjoy twirling it on the sly. But as a Christmas stocking gift for the nautically minded youngster, it can't be beat.

The larger, or outer, wheel is 11" in diameter, while the inner wheel — in which the necessary viewing slots are punched — is proportionately smaller. By revolving the inner wheel, boats come into view, and their types and rigs appear in the proper slots.

Types of knots are shown on the inner wheel, while compass bearings appear on the outer one. Storm warnings, watches, ship's time, relative bearings and boat nomenclature complete the catalogue of information to be found on this ingenious device.

The retail price is $1.00, complete with mailing envelope, and it may be obtained from your dealer or E. A. Johnson Company, 71 Peck St., Providence, R. I.



NEW ELECTRIC WATER LIGHT

ADDED protection for crews of naval and merchant vessels involved in submarine attacks is afforded by a new plastic-housed water light attached to life preservers and life rafts. It is highly recommended for pleasure boat use.

Upon hitting the water, a weighted base turns the light upright, automatically illuminating it. The light will burn continually for 10 hours or longer, indicating to rescue craft the exact position of drifting persons.

Use of Lucite plastic — the same plastic from which transparent sections of military airplanes are made — has reduced the weight to one-fifth that of the usual water light. The housing weighs about 19 ounces, the entire light just over three pounds. The tough plastic is water resistant, protecting the lamp and battery through long, hard wear.

Price is $7.50. Coston Supply Company, 50 Water St., N. Y.

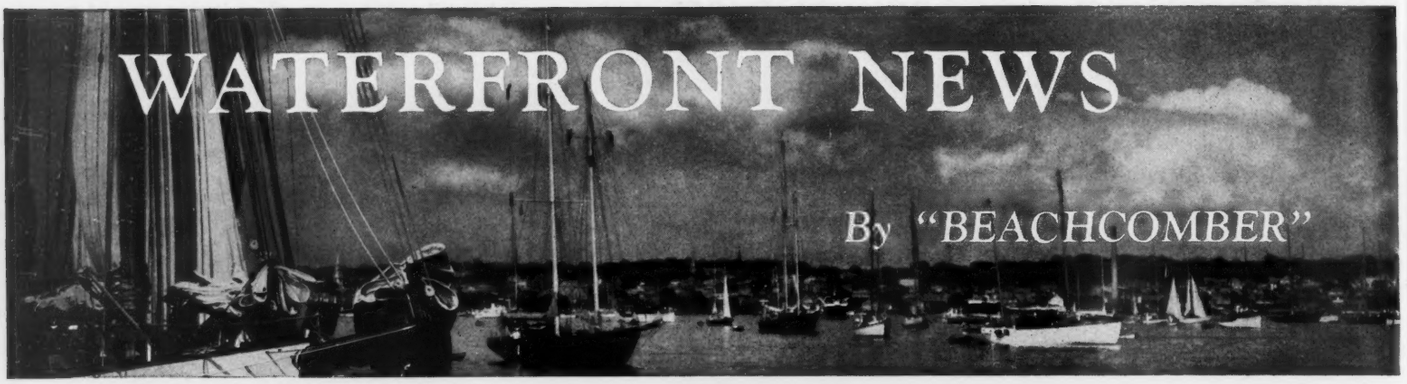
NEW ALL-STEEL FLOODLIGHT

THIS new floodlight features a unique combination of socket housing and reflector die-formed in one piece. Made entirely of steel, the floodlight utilizes a 200-watt bulb and provides a wide beam which can be pointed in any desired direction due to the two-jointed support upon which the unit rests.

The floodlight, known as the Type L-66, was designed as an inexpensive means of outdoor illumination. It is particularly adapted to dock, platform and shipyard lighting, and is useful for any other outdoor areas needing artificial light. (It is not recommended for shipboard use, since salt water spray may cause deterioration of the reflecting surface.) General Electric Company, 1 River Road, Schenectady, N. Y.

THE PERFECT CHRISTMAS GIFTS

WAR BONDS and Stamps are YACHTING's nomination. Available in all sizes and denominations, they will enable all of us to outdistance the Axis on every point of sailing!



WATERFRONT NEWS

By "BEACHCOMBER"

NEW SCOTT RADIO RECEIVER

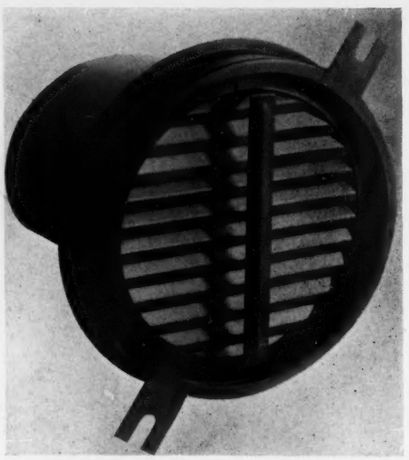
THE elimination of one direct cause of American ship losses was made possible recently by the introduction of a new low-radiation radio receiver by the E. H. Scott Radio Laboratories, Inc. Unlike ordinary radios (large or small), this specially designed set gives off no signal detectable by enemy direction finders, and it thus foils subs and vessels which have heretofore been able to track down our ships from distances of 100 miles or more away, simply by listening to the constant oscillator radiations sent out by the entertainment radios aboard them.

Radio engineers have long known that the oscillator tube in modern radios is actually a low-powered transmitter which broadcasts all the time the set is in operation. The F.C.C. knew this and absolutely banned the use of radios for entertainment at the outbreak of the war, on all ships of 1600 tons or over. Unfortunately, however, many officers and men,

hungry for news on long voyages and attributing the ban to government red tape, smuggled radios aboard ship. Every one of these sets that was operated was just as dangerous as a searchlight in a blackout. It gave away the ship's position just as clearly, it courted death for every man aboard and destruction to tons of vital materials.

The new Scott Marine Model SLR-12-A eliminates this danger to shipping by cutting oscillator radiation to the point of absolute safety. It has full approval from the F.C.C. for use at sea on both broadcast and short wave bands, assuring for the first time excellent performance at greatest distances from land under difficult shipboard conditions.

This marine model is adaptable to small boats, but is available now only on high priorities. It marks, however, a marine development which every yachtsman should make note of. E. H. Scott Radio Laboratories, Inc., 4450 Ravenswood Avenue, Chicago, Illinois.



VENTILATING BLACKOUT SCREEN

ALTHOUGH neither blackout nor dimout is today a concern of the yachtsman, for the reason that pleasure boats may operate only in daylight, it is a detail of considerable interest to pleasure boat operators who are using their boats for Auxiliary patrol work.

Some time ago Walter W. Garver, President of the Inter-State Industrial Equipment Corp., put his talents to the task of trying to devise a porthole screen or cover which would not only allow the necessary ventilation, but would also blackout illumination coming from portholes. The above illustration shows the result of his experiments, and the Rudsco screen, as it is now known, is today approved by the Navy and Maritime Commission.

The Rudsco ventilating blackout screen consists of three ring assemblies, spot-welded into one complete unit, each ring carrying a set of 20 gauge louvers inclined alternately at approximately 45° angles, the central ring mounting also a sixteen-mesh bronze screen. A 16 gauge steel rim, to which a projecting wind scoop can be attached, comprises the unit which is painted dead black.

The Rudsco screen may be obtained from Rudman & Schofield, 277 Pearl St., N. Y.

INSTRUCTION CLASSES

GEORGE ROOSEVELT, one of yachting's outstanding navigators, is conducting a class which meets at the Greenvale School, Roslyn, L. I., every Friday evening at 8:00 p. m. There is no charge for the class but students must supply their own books and instruments.

LIFE SAVING SUITS

ONE of the most interesting nautical developments of World War I and modernized for use in the present war are the new type life saving suits — rubber garments which can be donned in a few seconds and by reason of their design and construction afford warmth and protection to their wearers. Increasing numbers of the suits are being provided on both merchant and naval vessels, and their contribution to the reduction of loss of life at sea is impressive.

These suits are of various designs and are made by numerous manufacturers in the United States. Among these which have been tested by service on various ocean fronts are those manufactured by the R. L. Morey Co., 120 Wall Street, New York, and the B. F. Goodrich Co., of Akron, Ohio.

The Morner Life Saving Suit is one having a particularly high performance record. This suit is made in one piece of durable rubberized fabric, with attached boots and mittens and an inner-built kapok filled vest, which furnishes the necessary buoyancy. The important thing about the Morner suit is that the vest is permanently built-in. The extremely quick and foolproof watertight fastener is the feature that makes it so practical. This suit is not inflated and cannot sink even if damaged. Watertight Slide Fastener Corp., 15 Whitehall Street, N. Y.

We have met the enemy...

OLIVER HAZARD PERRY'S ringing message should be a lesson and an inspiration for today. "We have met the enemy and they are ours," was the Commodore's terse and descriptive note . . . and a great moment in American history.

Today, our fighting men are meeting a savage and capable opponent. In cases where they have met him with equal or near-equal force, the enemy has been ours. But that calls for no false optimism . . . there's a great big *IF* attached. Success in this war will only come *if* every American jumps into the fight. *If* we buy War Bonds, *if* we turn in scrap, *if* we are ready to work and sacrifice . . . then another American officer will get a chance to send a message from Tokio or Berlin. It can say nothing more effective than "We have met the enemy and they are ours."

In addition to the jobs we all are doing, yachtsmen have a special chance to help. Offer your own craft to Navy or Coast Guard . . . and offer your services too. Ask for information about the U. S. Coast Guard Temporary Reserve. Keep your boat and equipment shipshape. Obey the rules for wartime operation of private vessels . . . and stand by to answer Old Glory's call.

Exide
BATTERIES

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia
The World's Largest Manufacturers of Storage Batteries for Every Purpose
Exide Batteries of Canada, Limited, Toronto

SEA-GOING BOLTS and NUTS Now!

Fig. 1

Here are some of the non-ferrous and stainless fastenings Harper is now furnishing to hundreds of Uncle Sam's boat and ship builders.

CARRIAGE BOLTS (Fig. 1)—In 5 alloys (for frames) ¼" to ¾" diameter, any length you need made to order. 262 stock sizes in Brass, Naval, Everdur, Monel and Stainless.

STRUT BOLTS (Fig. 2)—(For holding struts). Made to order PROMPTLY; any diameter ¼" to 1¼", any length. Usually made of Monel, Bronze or Naval.

BRASS
BRONZE
COPPER
EVERDUR
MONEL
STAINLESS

NAVAL BRASS NUTS (Fig. 3) — ¼" to 1½" Naval specifications 43B11C and 46B6J. Continuous production of large lots for Navy needs. Also Brass, Everdur, Monel and Stainless nuts.

FLAT HEAD BOLTS AND SCREWS (Fig. 4)—For Port Holes, deck equipment and dozens of ship uses. BIG ones ½" to 1" diameter. Brass, Bronze, Everdur, Monel; many stock sizes.

4320 STOCK ITEMS . . . of bolts, nuts, screws, washers, rivets and accessories in the non-ferrous and stainless alloys. Specials made to order. Send for 84 page catalog.

The H. M. HARPER COMPANY
2640 Fletcher Street • Chicago

Fig. 2

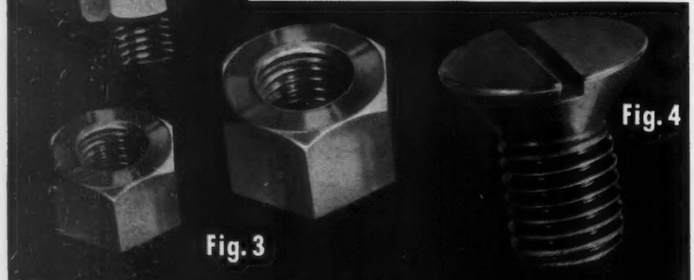


Fig. 3

Fig. 4

HARPER Chicago
EVERLASTING FASTENINGS

CONSIDER THE GALLEY SLAVE

(Continued from page 31)

ishment to fresh. Beware of the cook who is always seeking labor saving devices. Cooking cannot be accomplished without some little toil and, unless you like it and make it a labor of love, you will never be a successful cook.

I said I was not going to give any recipes, but here is one simple dish which I have never found described in the average yacht cook book. It has the great advantage that it can be prepared on almost any kind of a stove, and also that it is almost impossible to spoil it by over-cooking, provided proper precautions are taken:

Slumgullion (*Gitana style*)
5 pork chops.
5 large onions.
3 green peppers.
4 large tomatoes (or 1 can tomatoes). Fresh ones are preferable.
3 or 4 sections garlic (this is essential).
⅓ to ½ lb. rice.
Salt and pepper

Place chops in deep stewpot over moderate fire and cook until slightly brown on both sides (not more than 3 to 5 minutes — less if possible).
Add the onions (sliced roughly).
Add the green peppers (sliced fine).
Add the tomatoes (cut into quarters or sliced roughly if fresh).
3 teaspoonfuls salt.
⅔ teaspoonful pepper (don't be afraid of the pepper, especially on a wet night).
Add the garlic.

Cover with water and keep at slow boil for about an hour. Then add the rice, shaking it carefully over the top. *Don't stir.* If you do, you run the risk of having the rice stick to the bottom of the pot, and how it will stick! Cook for another half hour to forty-five minutes over a slightly hotter fire, or until the rice has absorbed nearly all the water. If the crew are not ready to eat, just add more water and keep at slow boil. Don't stir until ready to serve, then shake on a little more pepper and stir thoroughly but gently to avoid breaking up the pork. As a test of whether it is thoroughly cooked, flick about a spoonful carelessly in the direction of a cabin bulkhead while inhaling a can of beer. If the slum sticks, it is ready to serve. Serve immediately after you have consumed the beer, with ice cold apple sauce as a side dish. This is sufficient for five very hungry people. This dish has been tried out on my crews for many years without apparent harm — in fact, some of them have even asked for more!

DISHWASHING is really part of cooking if more than one meal is to be served aboard. It is funny how most people dislike it. I have known many men who daily go to almost any extreme — in fact, they will do about triple the labor elsewhere — to avoid the hateful but relatively simple task. Here are a few hints which may help to make life aboard just a little easier:

(1) On anything longer than a short overnight run, no one is exempt from dishwashing, neither the owner nor the cook. Everyone takes his turn and, if you wish to preserve peace, don't let the crew cut cards or throw dice to see who gets stuck. Insist on everyone doing his share — no more, no less.

(2) Every competent cook, having a galley fitted with a sink and a stove of sufficient capacity, keeps hot water on the stove at all times and washes up as his work progresses. It is unfair to leave to the washing gang a lot of utensils used and discarded during the preparation of a meal, particularly if they can be washed easily while cooking is in progress.

(3) The pan for dishwashing should be as large as can be stowed away when not in use. Washing dishes in a pan the size of a finger bowl is maddening. It is poor business to use the average small galley sink for dishwashing. There is nothing like an extra large dishpan on the cabin table, unless the galley is large enough to allow two or three people to work alongside one another without crowding.

(4) Provide an ample supply of large dish towels. Persons inexpert in their use get them wet through very quickly, and nothing is worse than trying to dry glasses and cutlery with a towel that feels as if it had been dropped overboard. With a coal stove, towels may be washed and dried between meals.

(5) When the last dish is dried, the wash up gang is through. All stowing of dishes and utensils should be performed by the cook, as he is then sure to find them before the next meal.

Follow these simple directions, and you will have a happy ship's company. You may also earn a little reputation, which, if not entirely in the direction you desire, will at least convey the implication that you are — in a humble way — a benefactor of humanity. After all, there are many good seamen but damn few even mediocre cooks!

U. S. MARINE CORPS PHOTO

...where they'll do the most good

Latest Jefferson-Travis two-way radio communication equipments are limited to the Armies and the Navies of the United Nations. Only the men in combat units or in the most vital services have them. *They are where they'll do the most good.*

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Manufacturers of Aircraft, Marine and Mobile Radio Communication Equipment

NEW YORK, N. Y. WASHINGTON, D. C.

This is no Snug Harbor

Your boat is up and covered for the winter. Yes, but under that covering which only protects against the snow and rain, there are forces of deterioration at work. Theirs is a snug harbor and you won't find out about their devastation until next Spring. Your craft is liable to damage from the outside, too—from fire, malicious mischief, heavy blows, etc. A boat out of water is, in short, vulnerable to many a damaging factor.

A sensible way to learn more about under cover damage is to request a Chubb & Son inspection —just as advisable now as next Spring. It is a free advisory service rendered by an organization with years of experience in the marine and insurance fields. And a question put to our representative about Port Risk coverage will provide an answer to your second problem regarding dangers from without. This winter let Chubb help you keep your craft seaworthy. Request an inspection NOW!

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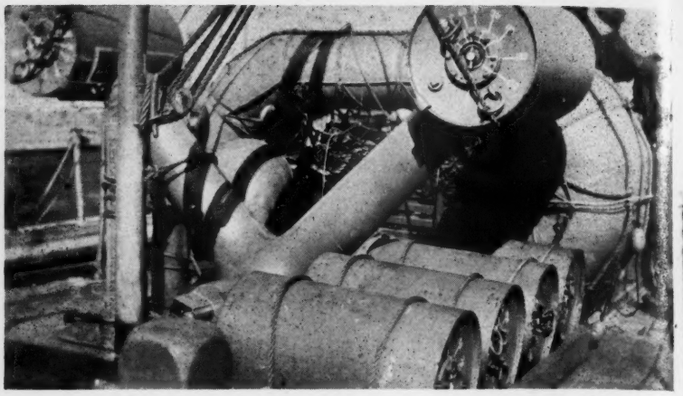


A depth charge thrower, or "Y" gun, of World War I

THE SUB-CHASERS OF WORLD WAR II

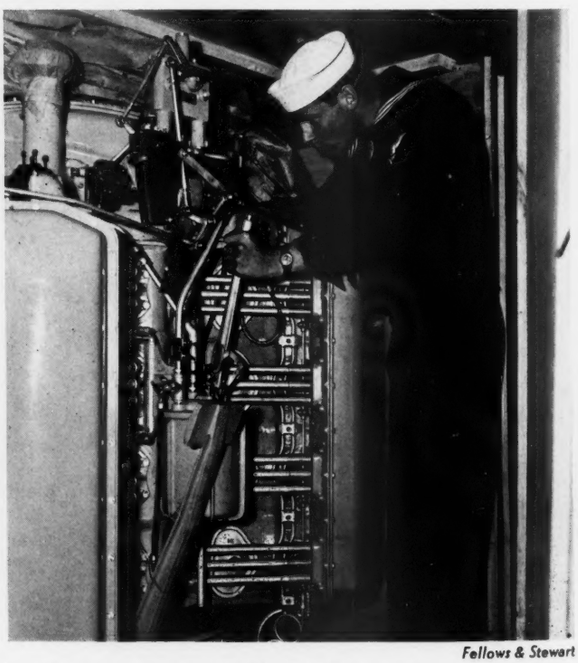
(Continued from page 21)

ready, however, a number of the 110-foot hulls which were already nearing completion were fitted with other standard makes of Diesels. This required changes in engine beds and engine room layouts and, as the total power thus provided did not equal that which the boats were designed for, the speed of these boats fell below what was desired of them. It was these latter boats, however, and the 173-footers already in commission, that had to carry on with the overworked destroyers and Coast Guard cutters in the heavy patrol and convoy operations off our coast last spring at the height of the German submarine campaign.

The duties being performed by these little 110's are many and varied. They are rugged and sturdy and, before the war is over, they will probably be called upon to do, and to carry, more than they were designed for. That is the way of war and the demands it makes both upon men and boats. In the last war, the 110's saw action in almost all waters where subs were operating and into which convoys were sent. They were found in the North Sea, around the British Isles, off the windswept coast of France, at Gibraltar, and in the Eastern Mediterranean. They even helped to sweep up the mine barrage between Scotland and Norway when the war was over.

In this war they will, doubtless, see service on an even wider front. Their radius of action is greater, their striking power is harder, their detection and signaling appliances more adequate. In other words, they are more useful. Wherever there is use for them, they will be found.

In the matter of equipment, the 110's carry a heavy load of depth charges, with two "K" guns for discharging them, and racks for dropping them over each quarter. These "K" guns replace the single "Y" gun the older chasers carried. The 3-inch gun they will mount forward has a longer barrel and greater range than those of the earlier chasers. They carry the latest



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The vertical "pancake" Diesel is light weight and compact

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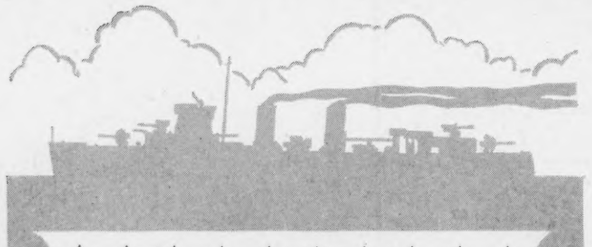

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WEATHERHEAD flexible fuel lines and tube service parts have countless uses on both ships on the ways and ships on the waves. Each marine part that Weatherhead produces has been engineered not only for performance but also for speed in production to meet the need so essential today.

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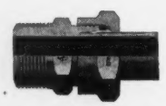

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FLEXIBLE FUEL LINES

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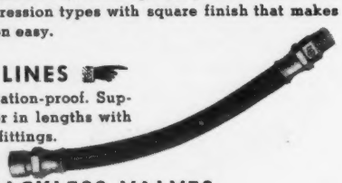

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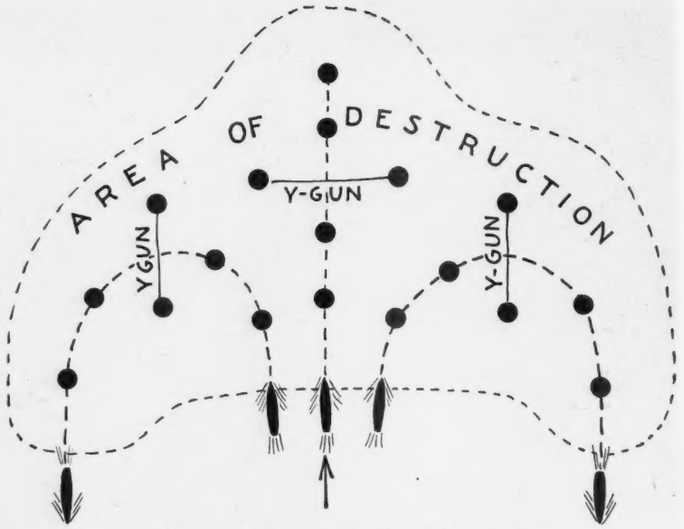


The widespread pattern of depth charges dropped by three sub-chasers of World War I

submarine detection devices and a powerful radio set. Anti-aircraft armament consists of two 20 mm. fast-firing Oerlikon guns. To handle all this special equipment, and to run the special high speed engines, they carry a normal crew of twenty men and two officers. All have to be specially trained. Those assigned to the chasers are first put through a stiff training course at base schools that have been set up. This applies to officers as well as men. The chiefs in charge of the engines have had several weeks, or months, of training at schools established by the engine manufacturers, and there is a sound school, which must be attended, for training in submarine detection.

As to duties, they will include patrolling, escorting convoys and sometimes single vessels, scouting for subs, guarding harbor entrances, and many others of like nature. The boats usually work in groups of three or more. Thus, against a heavier armed and equally fast submarine on the surface, they still have dangerous striking power, while in attacking a submerged sub, the group formation aids in detection and in spreading a pattern of charges in the attack that covers a considerable area. In the hands of trained, determined men, they can make it unhealthy for any lurking submarine of which they may run afoul.

Work aboard a chaser will be hard, wearing, rugged. Comforts will be few. Cooking, at times, will be hard or altogether out of the question in bad weather. Hours of duty will be long, watch and watch for the most part and "all hands" the rest. It is a young man's job. But it is a job that appeals. Many of those assigned to this service prefer it to any other. For it means action, movement, a chance to strike a blow where it is most needed and against a stronger adversary.

No wonder "chaser" men are considered lucky.

GET THAT SUB!

(Continued from page 44)

The "PC Navy" is largely dependent upon the Section Bases up and down the coast for supplies and ammunition. It is always a time for rejoicing when we head in for, like as not, with several other SC's in port, one is liable to run into Pluggety Foster or Porter Buck or any one of a bunch of fellows who were either at PC school, or in a Bermuda Race, or both. At school last summer it looked like a Cruising Club rendezvous, what with Harry Sears, Eddie Greeff, and many more, all milling around in various states of excitement and expectation, either schooling or waiting for orders to go get their ships. Alf Loomis greeted us at Staten Island when we tied up there one night; and so it goes, all up and down the coast.

Naturally, there are occupational hazards in this business, as in most businesses having to do with war, but we are in one that makes life more interesting than the average. From a distance in a seaway, or at night in quiet water close aboard, the outline of a 110 is remarkably similar to that of a submarine. On several occasions when we have been patrolling, the ship has been called to General Quarters, only to find on second look that the "sub" over there on the surface was in reality one of our own confrères. This may be particularly embarrassing at night with a convoy, because the Armed Guard crews on merchant ships are also playing for keeps these days. We count noses pretty often, and do not start fireworks unless we count four where there should be three.

Another factor that militates against the lowly submarine is air support

Photo courtesy Huckins Yacht Corp.

From roar to rumble with rubber

A typical example of B. F. Goodrich development in rubber

TORPEDO boats need speed and power, and one of the ways to get power out of a boat is to leave off the muffler—because there's no back pressure. But without a muffler even a little putt-putt of one or two horsepower is noisy.

A builder of fast seagoing cruisers had been asked to design a boat of over 3000 horsepower — more even than some of the big bombers — and so fast it could come in close to enemy ships, loose its torpedoes and get away in a zigzag course before gunners were even ready to shoot. But it mustn't make too much noise!

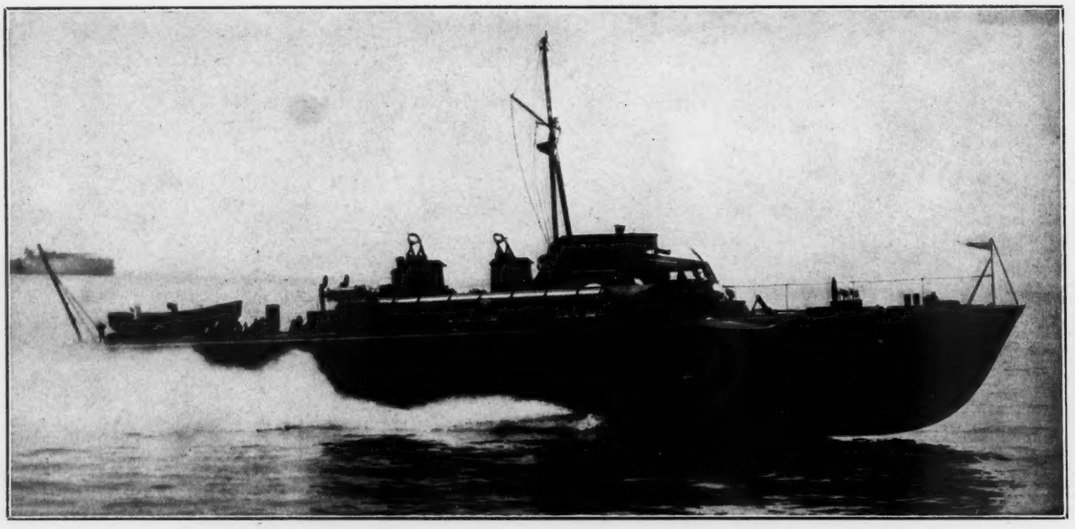
The designer knew that much of the noise of power boats is caused by metal exhaust pipes. He had used B. F. Goodrich rubber bearings and many other rubber products to reduce noise and vibration — why couldn't a rubber pipe be made that would reduce noise of the exhaust? He discussed the problem with B. F. Goodrich men.

The rubber would have to resist the hot petroleum exhaust gases; and it would have to stand up just as long as metal. Could such a rubber be found or made as a special compound? Rubber pipes were designed, made, tried out, and the boat designer found that a rubber pipe without a muffler was quieter than a metal pipe with muffler — and lasted even longer.

Many B. F. Goodrich developments these days are going into war products, but here's one that will benefit boat owners when the war is over. Even during the period of rubber restrictions research work goes on and many future improvements in rubber are being planned. *The B. F. Goodrich Co., Industrial Products Div., Akron, O.*

B.F. Goodrich

FIRST IN RUBBER



Knowing Jacob standards, the Navy has commissioned us to build American units of the famous British Vospers

Yacht Builders for Four Decades

ROBERT JACOB, INC.
City Island, New York

of surface vessels. Throughout the day and night, there are planes of the Army, the Civilian Air Patrol, as well as the Navy blimps, passing and repassing overhead, keeping an eye out for stray submarines that we might miss. Inasmuch as we can get up on their radio frequency at any time, we can — should the occasion arise — romp in under aerial directions and make a contact. This also works the other way around! If we make the first contact, we can call upon any and all aircraft in the vicinity to come in and join the party. One of the principal advantages of the blimp and the plane is that they can see through the water under certain conditions, and are therefore able to lead us directly to our target. This technique is particularly handy when the submarine is sitting on the bottom in shoal water, a condition which minimizes the effectiveness of our sound gear. This cooperation between the various offensive and defensive arms of the service has cut down the toll of the undersea raider immeasurably.

\+ + +

I may sound somewhat bromidic, but the sub-chasers did a notable job in the last war and, with all the improvements we have today, I cannot help feeling that the "PC Navy" will prove in large measure the tools with which to do the job.

AT SEA WITH THE PICKET PATROL

(Continued from page 46)

mast lashes out like a buggy whip and will pitch a man off if he doesn't have a leech-like grip.

The logs of the vessels in the patrol provide additional proof that sailing craft can stay out for a week or ten days at a time under weather conditions which would drive all motor driven vessels to shelter. During one easterly line storm, which ranged from 30 to 50 miles per hour for nearly two days, a 49′ ketch and a 65′ schooner were the only patrol boats on watch between Cape May and Cape Cod.

This brings up the method of communication between ships of the various patrols and from ships to shore. Each vessel and shore radio station has its identifying code signal. All ships must report their positions — in code — to the Coast Guard Base at assigned hours, and the radio operator of each ship is required to tune in for possible orders at least once an hour. Sometimes we were ordered to change our positions from one grid to another; once we were ordered back to the base a day ahead of time.

In addition, there is a complicated system of identifying, challenging and answering signals for use between patrolling vessels, aircraft and shore stations. These signals are the same for all vessels along the coast and they change constantly. The patrolling aircraft have orders to fire on any vessels which do not respond promptly to the identifying signal, so that you can be sure that the watch jumps to the signal apparatus whenever a plane is heard approaching.

When I returned to the Base upon the completion of my second cruise, I still had seven days left of my term of enlistment, and I revolted at the thought of spending my last week at the dock. Fortunately, a little 49′ ketch was ready to go out on patrol that evening and needed an extra man. I was transferred and started out again after only a few hours in port. The crew consisted of seven men, including the cook. The contrast between the two boats was marked, as at the time the boat to which I was shifted was one of the smallest vessels in the fleet. Because of her small stowage space, we had to leave most of our extra duffle ashore.

Midway in the cruise, which lasted seven days, we were ordered to another grid which took us a considerable distance offshore. During most of that time there prevailed a hard easterly blow which piped up to 50 miles an hour in the squalls, so that the crew had its hands full, especially at night, sailing the boat under jib and reefed mizzen. Tremendous seas would roar down on us as if to engulf the whole craft, but we rode over them easily, and it was only rare freak waves that came aboard.

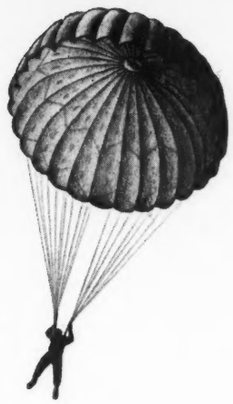
In the height of the gale, the jib and mizzen began to blow out at the seams and all hands were called on deck at 6:30 a.m. to take them in and set the double-reefed main. This was a rather hazardous performance, which required life lines on all men handling the sails.

That afternoon we were ordered to return to the Base so we jibed over on to the starboard tack and headed inshore. Shortly after midnight, the wind dropped so the main was furled and the motor started. Our position was uncertain as we had been unable to take sun sights for the preceding two and one half days, and our best estimate by dead reckoning was that we were nearly due south of our objective. We did not make a landfall until nearly noon of the following day. On reaching the Base, our ship received much commendation from the officers at headquarters for being the only vessel of any description on patrol during the height of the storm which had swept the coast from Cape May to Cape Cod.

Thus ended my tour of duty with the Coast Guard.

Note: Temporary duty in the Coast Guard has now been abolished; enlistments are now being accepted for General Duty only. Ed.

With New 250 H.P. Sea-Raider "Sixes"



One of the toughest prospects our gallant Air Force men are called upon to face is the necessity for bailing out over water—or making forced landings at sea. Today's extensive naval warfare coupled with long range aerial combat and reconnaissance places the severest demands on our armed forces to assure the safety of our flying personnel wherever possible.

As a result, fast, seaworthy Aircraft Rescue Boats have been designed and are now being built in steadily increasing numbers to "bring 'em back to fly again." Back of these unique sea retrievers is plenty of long range planning and realistic thinking to insure a quicker victory.

Significantly, these swift, staunch, seaworthy boats are powered with new type Kermath 250 H. P. Sea-Raider six cylinder, twin screw motors for split second operation and real dependability. Again we repeat: "*Those who know marine engines best appreciate Kermath most.*"

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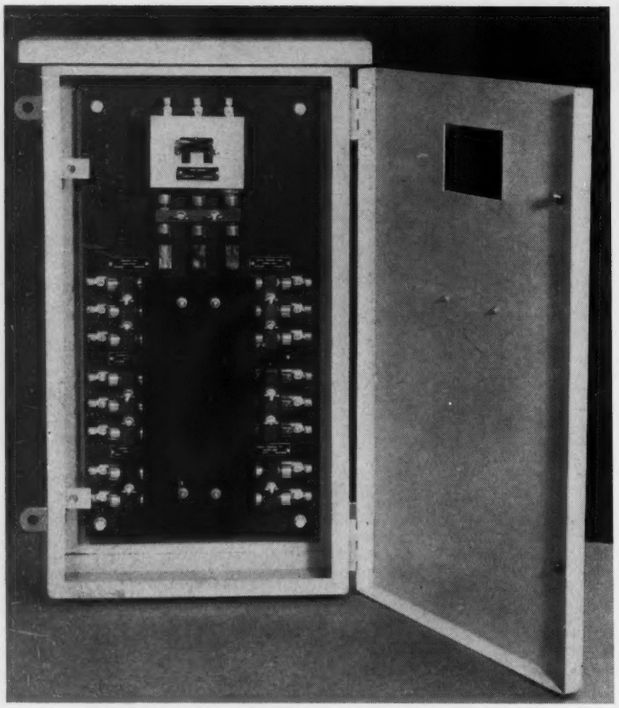
Vital To Sub Chasers



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Paragon designs and builds special boxes and panels for every application on all classes of ships. Write for complete catalog of Navy Type 9-S Boxes.

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BUILDERS OF CONTROL INSTRUMENTS . . . SINCE 1905

There is a majestic grandeur about Cape Elizabeth

TWO'S COMPANY

(Continued from page 40)

old-fashioned kind that Grandma used to make. But the morn broke inauspiciously for us. Shortly after dawn, Ed had noticed that our boat was down by the bow, and made a mental note to tell us that the trim of the ship was wrong. We had probably just started to go aground then. By the time we awoke, we were hard on the sand and by breakfast time the boat was so far over that the water was running along the port scuppers. By then, we had done everything we could for her — she was better off without us. So we took the box of farina and rowed over to the *Nancy*.

There was no arranged plan, and I'm sure no unspoken thought of "now it's your turn to cook." Work just naturally was divided. After particularly long runs, the first boat in had the beans ready to pop onto the plates but, generally, the cooks on each boat matched each other's specialties. And when cooks try to outdo each other, you get food that doesn't require sea air to sharpen the appetite.

This communal housekeeping had other advantages. Whereas cooking may become tedious when it is a daily job, it becomes an interesting occupation when (a) the audience is openly appreciative and (b) you can eat, even if you don't cook. Next time, though, the financial set-up has to be better. I'm sure that we got the short end, and Ed the long end of the bill. Most of the provisioning was done by anyone who happened to be in town; in between provisionings, food on either boat was jointly used. Much bread was thrown over the waters if one of us was long, and the other short, on loaves. Fruits in season landed cleanly in outstretched hands (as well as smashing on deck), cans, condiments, etc., were moved from ship to ship as they were needed. There was no bookkeeping about who owed whom.

But neither boat went off with the other's silver — I mean stainless steel. You were expected to bring knife and fork, not to mention highball glass and other necessary accessories, when dining off your own boat. After the wash-up, the experts were called to identify their possessions, a nuisance job but one which, approached with the right spirit, generated hilarity.

On other equipment the supplies in the skipper's lockers complemented each other. The lock on our ice box snapped; Ed tossed over a replacement. Ed needed a batten; we had a spare. We carried one of those simple, but life saving devices known as a "plumber's helper" which the *Nancy* needed badly but, when our fresh water supply ran out, Ed sent over a few gallons. We had a sailing dink, and Ed had a pressure cooker. Between the two boats, we had pretty much everything any of us needed.

Everything, that is, except for an extra jib. Ed carried two mainsails, but what he needed after one breezy day, was another jib. A hard puff found a weak spot in the sail and it split straight across. However, the mishap conveniently occurred just outside the harbor we were heading for, and we had planned to stay in port the next day anyhow.

The next automobile ride was taken only to see the scenery. For two people the cost of chartering an automobile for the day is something to think about, especially when it's Bar Harbor prices you're paying. But when there are seven in the party, the per capita cost is trifling. So we took a ride and saw the sights, went for a hike with the government ranger at the peak of Mt. Cadillac, and gave our attention to the flora and fauna. Except, of course, that we got a bird's-eye view of the waters we had sailed, and the reaches that next day we were to see from sea level. The view, the ride, the lobsters that we carried back to the boat for dinner that night made a grand party. And that's the most accurate way to describe the cruise — it was one grand party.

New United States Army Amphibian Command Boat

HERE'S potent news for patriots—The U. S. Army required a new type command boat for its amphibian command. U. S. Army engineers working against time (and around the clock) dispatched complete plans and specifications to Chris-Craft with orders to RUSH! RUSH! RUSH! In one-tenth of the time that it previously took us to build a pleasure boat of the same length, the new command boat was built, tested and delivered to Army engineers . . . Another example of Chris-Craft's ability and willingness to co-operate with the United States Armed Forces . . . Another real reason why the United States will *win this war.*

ARMY (E) NAVY

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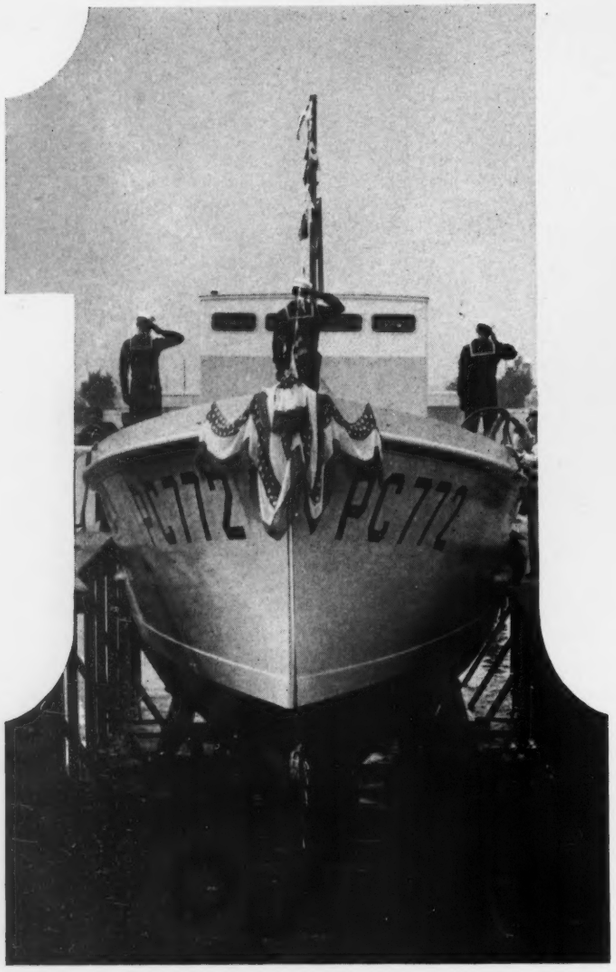
CHRIS-CRAFT CORPORATION, 412 Detroit Road, Algonac, Michigan

WORLD'S LARGEST BUILDERS OF MOTOR BOATS



NUMBER ONE JOB

America's number one job today is to win the war . . . all our energies must be devoted to this single objective. As boat builders, the people of the Peyton Co. are turning out vital sub chasers for our fighting Navy . . . as Americans they are buying war bonds at a rate that has won them the coveted Minute Man Flag

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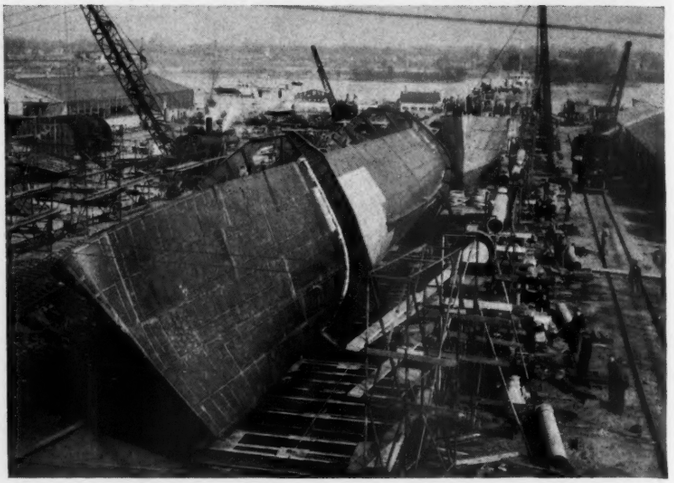

When framing and plating of a PC are finished at the Defoe Shipbuilding Company, the vessel is rolled over onto a steel gridiron for completion

THE 173's—SUBMARINE SLUGGERS

(Continued from page 26)

To man the greater number of guns, a larger complement is required. Even though the complement is practically double the crew of the smaller ship, the 173's larger size gives her a slight advantage in providing accommodations for them. Destroyer type fittings and arrangements are possible on these ships, and it has also been practicable to separate messing and berthing spaces for the crew, with ample galley and cold storage equipment. By the same token, officers' accommodations for quarters and messing are more commodious.

A considerable number of these sub-chasers has seen months of service, and their performance has been gratifying. Many more are on the ways at shipyards throughout the country. Modifications in equipment, resulting from combat experiences, and improvements resulting from later research are incorporated in these ships as fast as possible.

Upon delivery, the vessels are assigned for an indoctrination period at bases where the personnel is trained in the intricacies of the operation of the special detecting equipment, the technique in handling the ships' guns, depth charges and other gear. After this preparatory period, the ships are assigned to permanent service. In so far as possible, officers and men, prior to actual assignment to patrol duty, are sent to training schools for familiarization with the requirements of patrol service in similar ships. Engineering personnel are given short machinery courses at the plants of the various engine manufacturers. Upon completion of this advance training, officers and leading petty officers are ordered to report to the builders' yards shortly before the completion of each vessel; upon delivery and commissioning, they immediately go aboard and take over the ship.

Early experience has assured the sub-chaser type a definite and important place in the coastal defense section of the Navy's vast war problem. Performance to date has justified the extensive improvements in the 110-footer, and proved that this type, developed for an earlier war, is still an efficient means of defending against the more dangerous weapons of the present war. The larger version of the sub-chaser (the 173-footer) has also justified its adoption and has proved the wisdom of the development of a larger steel craft. A third class of sub-chaser will soon join the present two types, a steel vessel of approximately 180 feet in length, a further evidence of the trend toward increasing the size of these craft.

JUNIOR SAILING

Editor, YACHTING:

▶ I think your editorial in the November issue in regard to Junior Sailing, is most appropriate.

One of the most important reasons for continuing yachting in these times is Junior Training, and I think any lack of Junior activities on Long Island Sound in 1942 was not due to lack of interest on the part of the individual clubs.

The Larchmont Yacht Club, of which I am a member of the Junior Sailing Committee, continued its Junior activities with a normal enrollment although, of necessity, along more economical lines, and I am sure these activities will be continued by Larchmont in 1943.

We, at Larchmont, are particularly proud of the fact that many of the younger members now in the service of the Navy and Coast Guard received their early sailing experience in the Larchmont Junior Yacht Club.

New York, N. Y. DRAKE H. SPARKMAN

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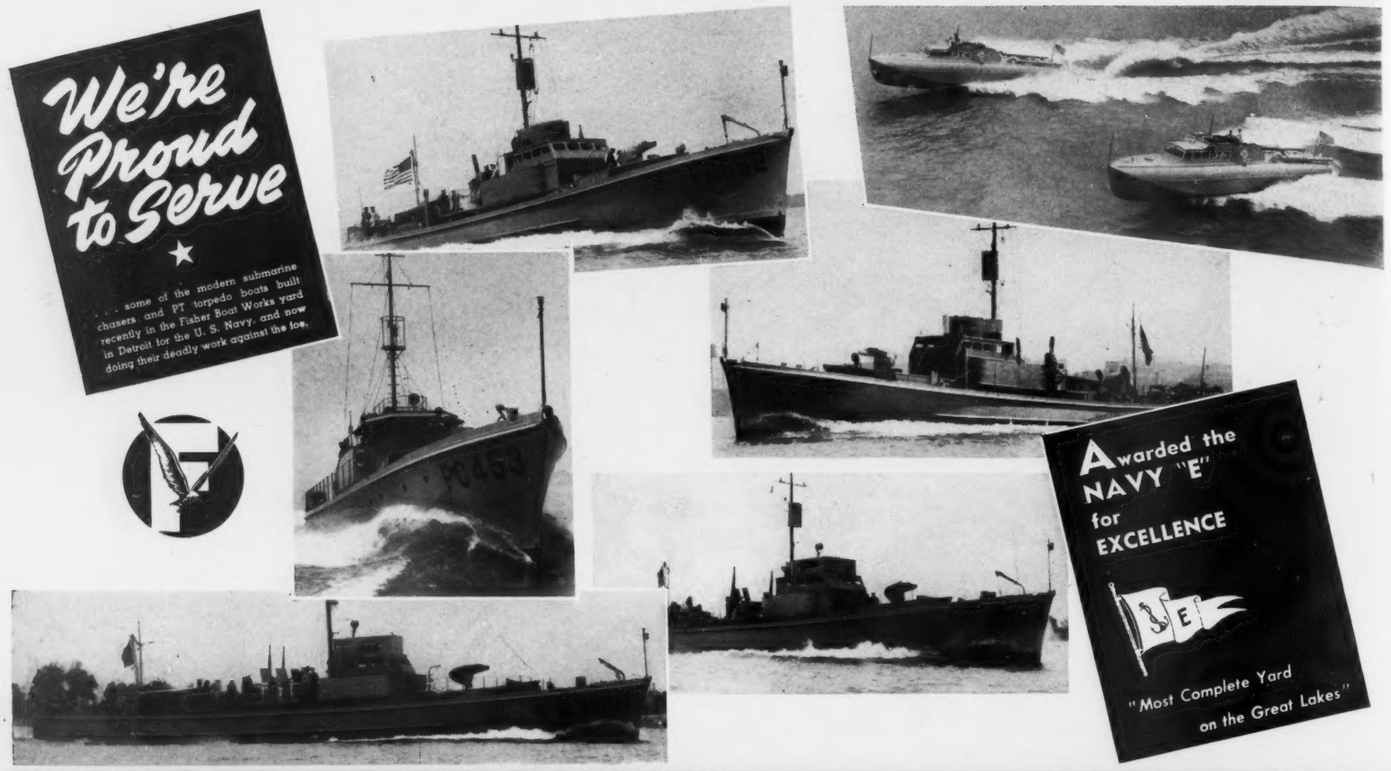
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DETROIT

DEATH OF A RAIDER

(Continued from page 34)

Assiniboine, on loan. "I thought I had seen action," he said, "but for a single encounter I saw nothing like this show. We were so close to the enemy that some of the men could readily have gone over the side to engage the Germans. It was a good scrap, but we were too much for Heinie."

There must have been joy at No. 10 Downing Street when Prime Minister Churchill learned the details of H.M.C.S. *Assiniboine's* encounter. He had once sailed in the Canadian destroyer and it must have warmed the cockles of his heart to know that his old "flagship" had handed the *coup de grâce* to the undersea raider.

It was following his first meeting with President Roosevelt, "somewhere in the Atlantic." The meeting had ended with the announcement that the "Atlantic Charter" had been drawn up by the two statesmen, and now Prime Minister Churchill was homeward bound in H.M.S. *Prince of Wales*, since sunk at Singapore. *Assiniboine* was numbered among the destroyer escort and, when the warships neared Reykjavik, the Prime Minister and Sir Dudley Pound, First Sea Lord, had chosen her as the destroyer to take them into the Icelandic port.

MUTINY IN THE "AMISTAD"

(Continued from page 29)

and broached. Around it a bitter fight broke out. Two of the slaves were bleeding from knife wounds and one lay dead on the deck before Cinque could restore order.

There was a scuffling below decks and an outburst of triumphant yells. Two Negroes appeared, dragging the wounded Montez between them. The old man was bleeding from a scalp wound and a deep cut in the shoulder. He had run below and concealed himself among some barrels in the hold, covering himself with a piece of sail cloth. There he cowered until the looting Negroes discovered him and dragged him out. He blubbered helplessly in the hands of his savage captors and would have fallen if they had not held him up.

A dozen of the slaves gathered in a clamorous group, raising in their own tongue the cry of "Kill! Kill!" Some of them glanced hesitantly at Cinque, waiting for an order. Others formed a ragged circle and began a ceremonial death chant.

It was Don José Ruiz who intervened. He pushed through the group of blood-thirsty blacks and grasped Cinque by the arm.

"Do not kill him. I, Don José Ruiz, ask it as a favor. He is an old man, Don Pedro. He can do you no harm. Do not kill him."

The confident young Spaniard had saved the life of the cabin boy when he struggled in the grip of the black mutineer. Don José was less surprised than he should have been when the tear-stained youngster was released and Cinque busied himself elsewhere. He did not hesitate now to ask for Montez's life, and it was quite characteristic that he suggested it as a favor to himself.

The big Negro watched him with thoughtful, alert black eyes, not understanding. Ruiz broke off suddenly and raised his voice in a shout.

"Ho, Antonio! Boy, come here!"

He addressed the mulatto boy in rapid Spanish. "These fellows want to kill Don Pedro. See if you can make them understand. Tell them there is no one left who can sail the ship. He cannot hurt them. He is an old man and wounded. He used to be a captain himself. Tell them he will show them how to sail the ship."

The big Negro listened, or appeared to be listening. The pistols which had belonged to the dead captain protruded from his belt. His naked torso gleamed darkly with sweat. The inch-square steel handle of a bloody cane knife was gripped in his hand. Yet his bearing was dignified and resolute, rather than savage. There was intelligence in the look he turned from the little cabin boy to Ruiz.

He answered at last, speaking a few sharp words to his followers. There was obvious disappointment on the faces of the blacks, some subdued grumbling, but no one seemed disposed to debate the issue. Reluctantly the group dispersed. The two Negroes who held Don Pedro jerked the old man roughly forward and lashed his left wrist to the right wrist of Don José. Beyond that it appeared they were not to be molested.

Ruiz soaked his handkerchief in water and bathed the older man's wounds as well as he could, binding them up crudely with the help of Antonio. The old man was faint from loss of blood and scarcely coherent.

"They will not do anything more tonight, I think," Don José told him. "We might as well get some rest."

Stumbling over the huddled forms of the slaves who were already collapsed on deck, asleep or dead drunk from the sudden effects of Captain

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U. S. A. Pat.	2,144,111	U. S. A. Pat.	2,225,111
U. S. A. Pat.	D,113,668	U. S. A. Pat.	2,254,144
U. S. A. Pat.	2,163,998	U. S. A. Pat.	2,255,365
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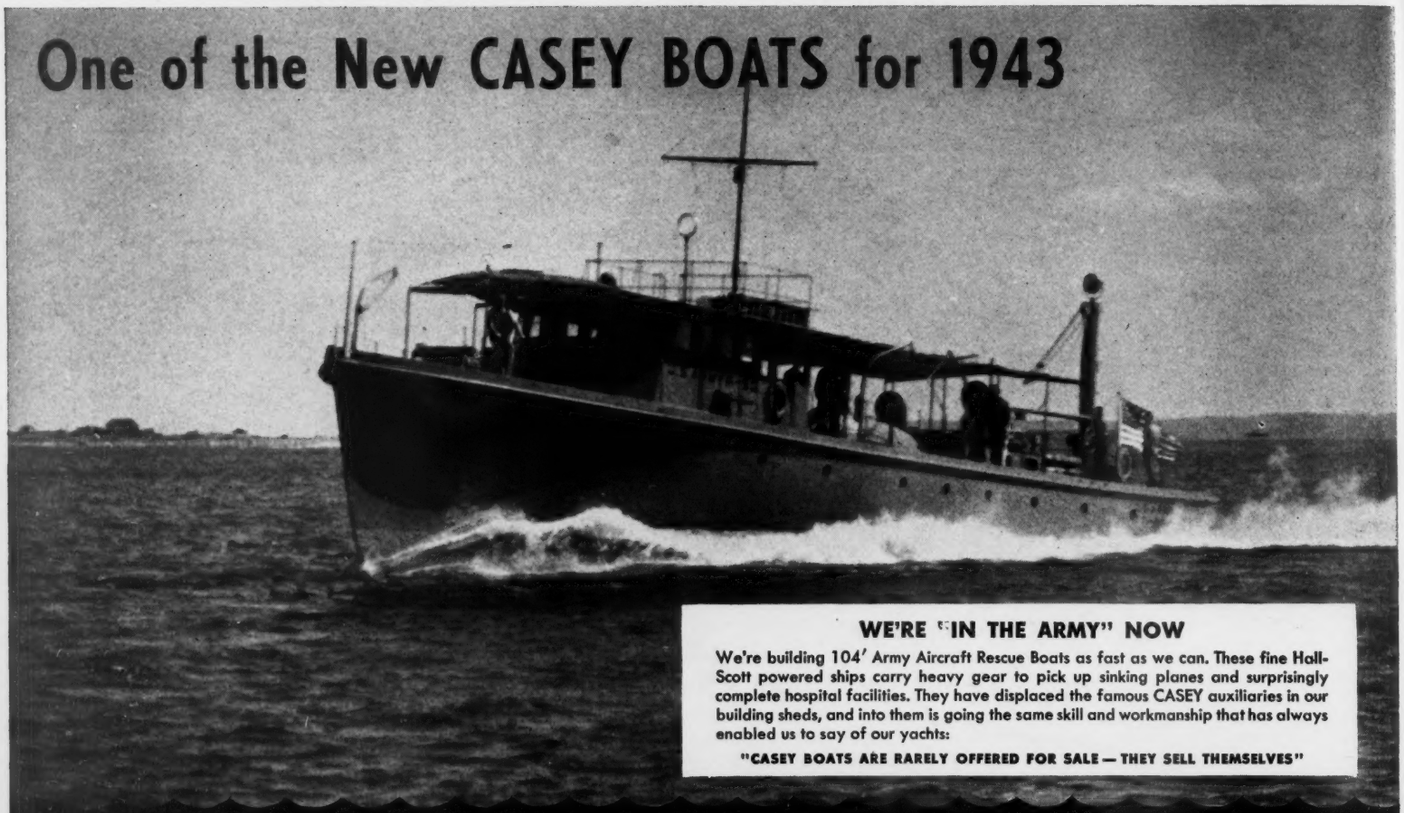

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Ferrer's rum, they found a clear space beside some cargo bales and settled themselves as comfortably as possible. The ship was growing quieter. Don José, who was not given to worrying and who was exhausted besides, fell asleep almost at once.

Everyone that night slept on deck. The slaves, free from their irons and weary with looting, lay where they dropped. Cinque took the captain's cabin for his own. A hurried inventory had disclosed that there was much gold aboard, some in the passengers' trunks and a large strong-box full of doubloons in Ferrer's cabin. Cinque had no accurate notion of the value of the coins but his heart leaped with hope at the discovery.

(To be concluded)

HARVARD WINS THE SCHELL

(Continued from page 56)

this regatta was noteworthy. In the first place, the Crimson went into this regatta without the services of their ace skipper, Dave Noyes, who holds the I.C.Y.R.A. No. 1 ranking. Despite this handicap George O'Day and Johnny Burton sailed to victory. For a second achievement, this pair, with their crews of Douglas Danner and Duncan Reid, spotted the Holy Cross team 10 points going into the final race of each division and then proceeded to stage a "Garrison finish" as the Crusaders tumbled.

The big event of the fall season, which was to be the swan song in major competition of such I.C.Y.R.A. stars as Dartmouth's "Bus" Mosbacher and Warner Willcox, "Prexy" Dick Besse of Yale, Bob Barningham of Brown, and Jim Noonan of Boston College, drew a fine entry list of 15 colleges, the largest since gasoline rationing became effective. Although Brown had enjoyed midsummer weather the previous afternoon for its Fall Invitation Regatta, won by Dartmouth which was defending the Schell Trophy, the morning was not promising with rain and not much breeze.

However, I.C.Y.R.A. luck on weather prevailed with the downpour ceasing, the skies partially clearing, and a nice, though shifty, WSW breeze springing up by the time the racing got under way. With the fleet divided into two heats for the qualifying round, three races were sailed with the following team results

Division I: Holy Cross, 43; M.I.T., 39; Northeastern and Yale, 38 each; Boston College, 34; Williams, 26; Stevens Tech, 22; and Drexel Tech, 18. (High-Point skippers: Arthur Ogden, Holy Cross, 26; James McSorley, B.C., 24.)

Division II: Harvard, 42; Dartmouth, 38; Coast Guard, 37; Brown, 33; Trinity, 27; Princeton, 18; and New Hampshire, 14. (High Point skippers: John Burton, Harvard, 24; Robert Barningham, Brown, 20.)

Arthur Ogden and Tom Macdonald put Holy Cross ahead as soon as the finals were under way. Although their five principal rivals hung on doggedly, the Crusader's margin grew steadily throughout the six races. It stood at ten, with 62 points to Havard's 52 and M.I.T.'s 50, as the last two races came up. Then Holy Cross cracked, both Macdonald and Ogden finishing ninth in their divisions, as George O'Day and Johnny Burton of the Crimson each landed a third to spell victory and Tech, matching Harvard's points on Hal Boericke's first and Sam Parkinson's fifth, rocketed up into a second place tie with the fallen Crusaders who, although only Associate Members, have now twice missed by a hair turning in a major upset in a big regatta.

High scoring honors were divided between Harvard's Johnny Burton and Sam Parkinson, of Tech, with 40 points each in the finals. Burton, with a record of four wins, two thirds, and a fifth in seven starts was top man in both the qualifying and final series. Charles Daniel, of Coast Guard, led in Division One with 39 points. Cadet Philip Hildebrandt, a Coast Guard substitute, won the consolation series conducted on an individual basis with Allen Richmond, of New Hampshire, second. Another aspect of the regatta was the extremely clean sailing which followed the adoption of new rules on fouls and protests, and the trial of a new scoring system by the I.C.Y.R.A.'s Executive Committee.

The point standing of the finals by divisions follows:

FIRST DIVISION

Skipper and college	*Pts.*
Charles Daniel, C.G.	39
Thomas Macdonald, H.C.	35
Robert Barningham, Brown	35
Emil Mosbacher, Dartmouth	33
Richard Besse, Yale	33
George O'Day, Harvard	32
Harold Boericke, M.I.T.	30
Thayer Richardson, N.E.	23
James McSorley, B.C.	22
Randolph Sharp, Trinity	11
John Tyler, Williams	11

SECOND DIVISION

Skipper and college	*Pts.*
John Burton, Harvard	40
Samuel Parkinson, M.I.T.	40
Arthur Ogden, H.C.	35
Clifford Lewis, Yale	35
John Henshaw, N.E.	31
Warner Willcox, Dartmouth	28
James Noonan, B.C.	26
Arthur Fontaine, C.G.	23
Brooks Maue, Trinity	20
James Starkweather, Brown	14
Henry Strong, Williams	13

LEONARD M. FOWLE

BOMBED OUT OF THE WATER... *Still in the War!*

★ The Battle of Britain was practically at its peak when Mr. J. W. Vincent of Associated Manufacturers, Ltd., British distributors of Gray Marine Motors wrote: "October 15, 1940 . . . a number of Richardson cruisers—26 footers—were taken over by a government department for patrol work on the River Thames . . . we have been supplying spares for these boats (all with Gray 6-51 motors) and are now beginning to appreciate the work that these craft have been doing. One week's running now is almost as much as the boats previously did in a season or more—all the boats have been in continuous service now for over 13 months.

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THAT "MOST FAMOUS PROTEST"

Some Further Comments

IN HIS article in August, 1942, YACHTING anent the *Defender-Valkyrie* foul at the start of the America's Cup Race on September 10th, 1895 — a foul caused by *Valkyrie*, overtaken to leeward, bearing away out of her course and damaging one of *Defender's* weather shrouds — Mr. Henry L. Maxwell says that the outcome of this case "all depends on *why*" the weather yacht bore away. In other words, that *motive* is the determining factor. This contention the writer emphatically denies. He contends that with the possible but very doubtful exception of a case arising under the third paragraph of "Meeting, Crossing and Converging" of the present (1942) rules, *motive* in 1895 and 1929 was, and in 1942 is, no more a factor in a case involving the bearing away rule than in a case involving the violation of any other yacht racing rule. And as authority for this contention he will cite not only *Defender* v. *Valkyrie* itself, but also another New York Yacht Club case of some 34 years later date decided by that club's Committee on Racing Appeals of which Mr. Maxwell then was a member.

Mr. Maxwell's article must have been of interest not only to students of the Yacht Racing Rules — both past and present — who were familiar with the unfortunate accident to *Defender*, but also to those who may never have heard of that historical and famous yachting episode. For the detailed facts we refer our readers to Mr. Maxwell's interesting article, and to "Decisions and Rulings of the Regatta and Race Committees of the New York Yacht Club, 1849–1923," compiled and edited by Gherardi Davis, Esq., pages 16–18.

About two minutes before the windward start, both yachts, which had been standing away from the starting line on the port tack, jibed and headed for the line on the starboard tack with started sheets, *Valkyrie* ahead and slightly to windward. An excursion steamer blundered into their path. *Valkyrie* passed to windward, *Defender* to leeward of the steamer. Directly after clearing the obstruction, *Defender* luffed slightly, *but thereafter steered a straight course for the line*, leaving *Valkyrie* "sufficient room . . . to pass clear of the committee boat." *Defender* overlapped *Valkyrie* to leeward. To avoid a premature start, *Valkyrie* bore away, and in straightening her course her main boom struck and damaged *Defender's* starboard topmast shroud.

The five sections of the N.Y.Y.C.'s 1895 Right of Way Rule XVI pertinent to the case were:

On Same Point of Sailing, with Wind on Same Side

(4) When both yachts are free, or both have the wind aft, and have the wind on the same side, the yacht to windward shall keep clear.

Overtaking

(7) An overtaking yacht shall, in every case, as long as an overlap exists, keep clear of the yacht which is being overtaken.

Definition of Overlap

(8) An overlap is established when an overtaking yacht has no longer a free choice on which side she will pass, and continues to exist as long as the leeward yacht by luffing, or the weather yacht, by bearing away, is in danger of fouling.

Altering Course

(9) When of two yachts, one is obliged to keep clear, the other shall not so alter her course as to involve risk of fouling.

Bearing Away

(11) A yacht shall not bear away out of her course so as to hinder another in passing to leeward.

Let us analyze the situation just prior to the foul:

If overtaking conditions did not exist and the yachts were converging, then Sec. 4 governed, and it was *Valkyrie's* duty, as weather yacht, to keep clear. Sec. 9 then made it incumbent upon *Defender* not to alter her course so as to involve risk of fouling.

At all times after clearing the excursion steamer, risk of fouling existed.

If Sec. 7 — Overtaking — governed, *Defender*, as overtaking yacht, was obligated to keep clear. In that case *Valkyrie* likewise was bound by Sec. 9 not to alter course so as to involve risk of fouling.

The yachts were overlapped as defined by Sec. 8.

Now, what section of Rule XVI did the Regatta Committee find governed the yachts at the time of the foul? They found "that *Valkyrie*, in contravention of Sec. 11 of Racing Rule XVI, bore down upon *Defender* and fouled her by the swing of her main boom when luffing to straighten her course." They sustained *Defender's* protest. The committee might well have added that *Valkyrie* also breached Sec. 9 — Altering Course. In other words, they found as a fact and ruled as a matter of yacht racing law tha

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immediately prior to the collision, the yachts were governed by Sec. 7; *Defender* was *overtaking* and *overlapping Valkyrie* to leeward. Sec. 9, as well as Sec. 11, obligated *Valkyrie* not to bear away out of her course.

Under present Rule 45, a written protest "must name the rule or rules alleged to have been infringed, and contain a statement of the facts." In 1895, Rule XVIII (1) required only that "A protest must be supplemented by the facts." That, undoubtedly, is the reason why Mr. Iselin's protest cited no section of Rule XVI violated by *Valkyrie*.

In 1895, as well as at the present time, it was incumbent upon a Committee hearing a protest to base its decision on the testimony, and not alone on the rule or rules alleged to have been violated, because 1895 Rule XVII (2), last clause (present Rules 35 and 43), specified that "any yacht . . . which . . . shall . . . infringe or fail to comply with any of these Rules, shall be disqualified." Now let us come directly to Mr. Maxwell's contention that *motive* is a factor. He says:

"It is doubtful if *Valkyrie* had violated Section 11. It all depends on *why* she bore away. If she did it, as seems unlikely, to *hinder Defender* in passing to leeward, she was guilty, but if she did it so as not to reach the starting line too soon (the probable reason), she *did not* violate Section 11 of Rule XVI."

Mental intent is capable of proof only by one's words or deeds. Existence of intent to violate the law is presumed from commission of the act, on the ground that one is presumed to intend one's voluntary acts and their natural and probable consequences. It is the *result* of the *act* complained of, not the intent with which it is done, that governs. The only test is what *effect* did A's act have on B.

"The Most Famous Protest" itself is authority against Mr. Maxwell's contention. The decision stated: "We have given the matter our careful consideration, and believe that *the foul occurred through a miscalculation of the distance* between the yachts at a critical moment." (Italics — the Author). Whose miscalculation? That of *Valkyrie's* skipper who made the alteration of course that caused the contact. The decision did not state; it did not even intimate; in fact, it absolutely negatived the contention that *Valkyrie* bore away out of her course for the purpose of hindering *Defender* in passing to leeward, and yet the Regatta Committee sustained Mr. Iselin's protest. Obviously, it was the result of *Valkyrie's act*, not the motive which prompted the act, that governed. . . .

The subsequent New York Yacht Club case of *Andiamo-Istalena* occurred on August 19th, 1929. The race committee, consisting of Messrs. Edmund Lang, Chairman, Colgate Hoyt, and E. Vail Stebbins, disqualified *Andiamo* for violation of 1929 Racing Rule 37 (1) (b) — Bearing Away. (N.Y.Y.C., 1929 Report of Race Committee, page 13). *Andiamo* appealed to the Committee on Racing Appeals, consisting of Messrs George Nichols, Chairman, Wm. Butler Duncan, Harold S. Vanderbilt, E. Townsend Irvin, Clinton H. Crane, Henry L. Maxwell, and W. A. W. Stewart. The Appeals Committee, on January 14, 1930, affirmed the decision of the Race Committee.

The facts were these: The yachts were overlapped at the leeward mark, *Andiamo* inside and to windward. Immediately after hauling on the wind around the mark, *Andiamo* drew clear ahead. When, to trim sheets hard, *Andiamo* luffed to within 1½ points of the wind, *Istalena*, already hard on the wind, overlapped her opponent to leeward. "*In order to gain headway and get her sails full, Andiamo*, bore away six (6) points from the wind, causing *Istalena* to bear away 1½ points to avoid a collision, which at the time prevented her from passing to leeward," or, in the language of the Committee on Racing Appeals, "*thus hindering Istalena* in passing her to leeward." (Italics — the Author) . . .

In 1895, the rule was worded "so as to hinder," which negatived the contention that motive is a factor even more than did the words "to hinder" in the 1929 rule; and yet, in 1929, both the Race Committee and the Committee on Racing Appeals held that *Andiamo* had violated the prohibition against bearing away on a yacht overtaking to leeward, and this notwithstanding that the facts as stated in the report of the Race Committee show an *entire absence of intent* on the part of *Andiamo* to hinder *Istalena*. The Race Committee said that *Andiamo* bore away "in order to gain headway and get her sails full." Note particularly the words "thus hindering" in the decision of the Committee on Racing Appeals. They refer to the *act* which caused hindrance to *Istalena*. *Why Andiamo* bore away was immaterial. Her lack of intent to hinder her opponent did not excuse her. The fact that she *did* hinder *Istalena* was the crux of the case.

It follows, therefore, that *why Valkyrie* bore away on *Defender* was no more germane to the question of violation of the 1895 overtaking-to-leeward rule than was *Andiamo's* lack of harmful motive in bearing down on *Istalena* in 1929. *Valkyrie* alone was disqualified — properly. *Defender* violated no rule. . . .

In the writer's opinion these two decisions prove conclusively that *motive* — the *why* — is no more a factor in the violation of the rule prohibiting a yacht overtaken to leeward bearing away out of her course, if in fact such bearing away *did* hinder her opponent, than it is in a protest alleging violation of *any other* yacht racing rule.

George E. Hills

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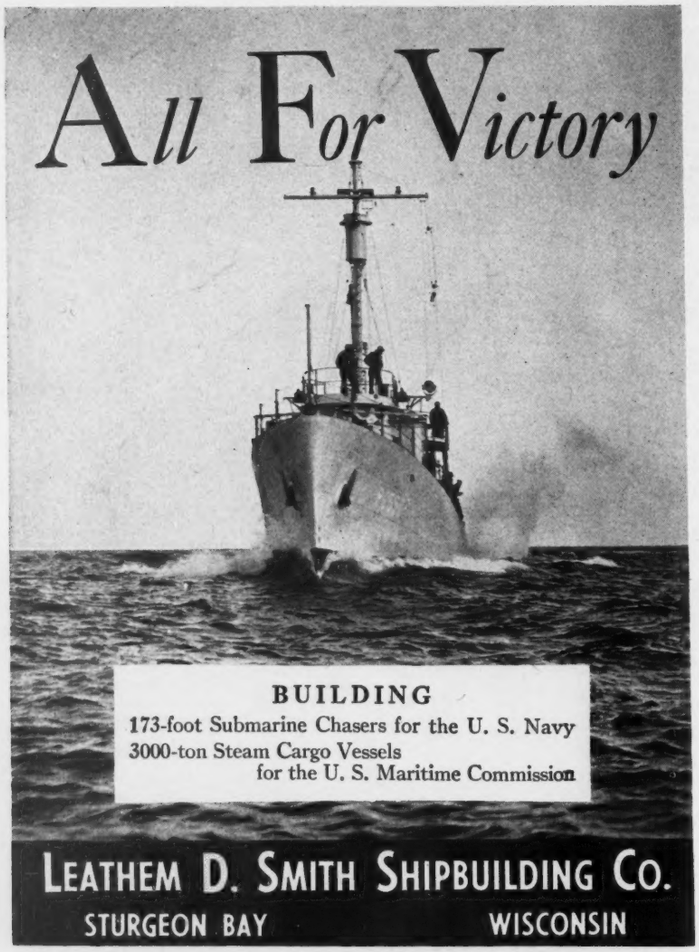
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▶ HANDWORK IN WOOD, by William Noyes and A. F. Siepert (*The Manual Arts Press, Peoria, Ill., $3.00*). Yachtsmen who like to do their own joinerwork will find this book well worth reading. It is profusely illustrated.

▶ ADMIRAL OF THE OCEAN SEA, by Samuel Eliot Morison (*Little, Brown & Co., Boston, $3.50*). There have been many books written on the life of Christopher Columbus, but none that is as wholly satisfying to a seaman as this one. The book is a marked addition to the history of a great figure. Amply illustrated.

▶ CLOUDS, AIR AND WIND, by Eric Sloane (*The Devin-Adair Co., New York, $2.50*). Sailors and aviators alike will be interested in this primer of flight meteorology, with handsome full page illustrations. The book covers much of meteorology in simple, non-technical language, understandable by the layman.

▶ MANUAL OF CELESTIAL NAVIGATION, by Arthur A. Ageton (*D. VanNostrand Company, Inc., New York, $1.85*). "Ageton scores again" might well be the title for this new book of tables for solving the celestial triangle. This new work of Arthur Ageton, now Commander and head of the Navigation Division of the Department of Seamanship and Navigation, U. S. Naval Academy, has taken its rightful place in the front rank of modern methods.

▶ AN INTRODUCTION TO SHIPBUILDING, by Shipbuilding Division, Bethlehem Steel Co. (*Supt. of Documents, Washington, D. C., 20 cents*). An interesting and important booklet, overflowing with information designed to acquaint the reader with the tools, terminology, materials and general procedure of shipbuilding.

▶ WHAT THE CITIZEN SHOULD KNOW ABOUT SUBMARINE WARFARE, by David O. Woodbury (*W. W. Norton & Company, Inc., New York, $2.50*). The submarine, from its beginnings to the present day. Sketchy in regard to some phases of submarine design and operation, it remains the best tabloid account of the tools of undersea warfare published in recent years.

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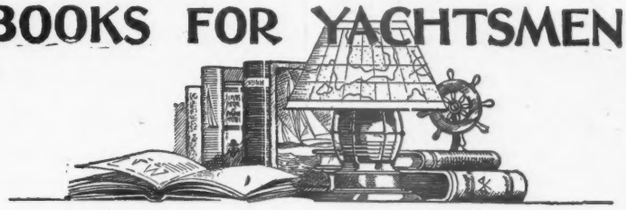

"What," says Average Mrs. Mate to Average Mr. Skipper, "do you want for Christmas?" Thereby hangs a tale, and one which is apt to involve endless hours of checking catalogues, thumbing over "must items" and other activities which tend to reduce Average Mrs. Mate to a mere shadow of her former self.

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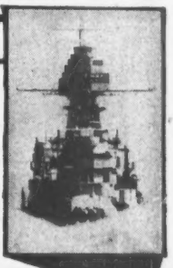

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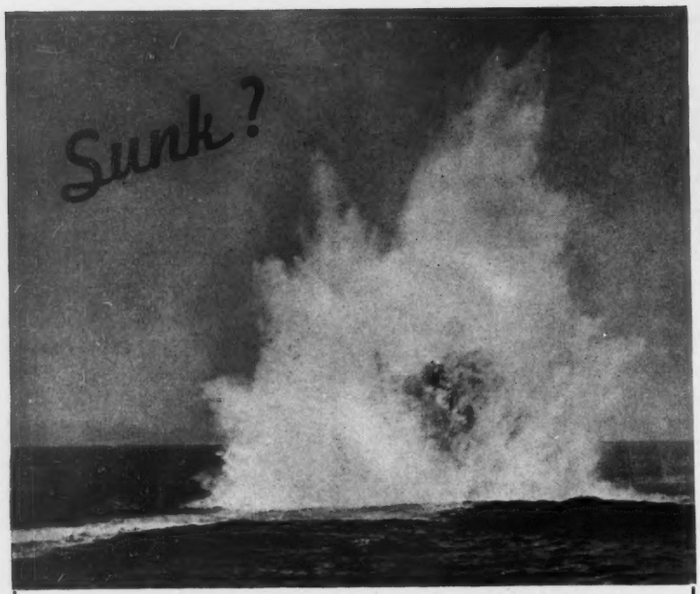

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Sims held many high posts in the Navy. This book should be required reading for anyone interested in the efficiency of the Navy. C. H. H.

A LAYMAN'S GUIDE TO NAVAL STRATEGY

By Bernard Brodie

(Princeton University Press, $2.50)

▶ Some time ago there was published a book entitled "Sea Power in the Machine Age" wherein the author told his story of "the industrial revolution in the implements of sea warfare and of the effects of that revolution upon the world equation of maritime power." No sooner had it been published than it became the recipient of enthusiastic praise from layman and naval authority alike; it can now be said to be one of the most authoritative books on the subject, and certainly one of the most interesting of the recent additions to the history of sea warfare. Mr. Brodie's new book, "A Layman's Guide to Naval Strategy," warrants even higher praise. It would not be an exaggeration to state that it supersedes any previous work on the subject which is of the same scope and directed to a similar audience.

The Table of Contents is indicative of its comprehensive coverage of a highly elastic subject: "Sea Power in Modern War," "The Tools of Sea Power," "Command of the Sea," "The Defense of Shipping," "Land-Sea Operations," "Bases," "Must All of Our Ships Have Wings?", "The Tactics of Fleet Actions" and "The Men Behind the Guns." Of interest is an admirable reading list, and of note is the chapter: "Must All of Our Ships Have Wings?" which is an understandable and incisive discussion of the furious airplane *vs.* surface fleet debate.

For all those who are concerned with naval matters — be they deck officers or "armchair admirals" — this book is highly recommended.

C. R.

METEOROLOGY FOR SHIP AND AIRCRAFT OPERATION

By Peter E. Kraght

(Cornell Maritime Press, New York, $3.00)

▶ This reviewer, who has avidly read everything published in YACHTING of recent years on the subject of weather, many books, and has dabbled in weather predicting in an amateur sort of way (even sticking his neck way out by preparing some of YACHTING's week-end weather forecast scripts for the radio during the 1940 and 1941 seasons), has long felt that there has been a real need for an authoritative book on meteorology written in language which the ordinary yachtsman could understand. "Meteorology for Ship and Aircraft Operation" is just that. A handy little volume of pocket size, its 373 pages are packed full of the kind of weather information seamen and pilots want, and illustrated with 155 remarkably clear diagrams by the author. It includes 44 pages of supplementary information in appendices.

The text of the book is divided into four sections, the first of which sets forth the general properties of the atmosphere. This is followed by a discussion of vertical winds and weather conditions accompanying them which includes the familiar Cumulonimbus or thunder squall. Part three deals with horizontal winds and accompanying weather; and in this section the author goes into warm and cold fronts, cyclones and anticyclones, earth friction, terrain deflection, clouds and precipitation, the sea breeze and gusty winds. Part four takes up fog and other low clouds in detail.

The author, Senior Meteorologist of American Airlines, Inc., at New York, is known to many yachtsmen in that area for his frequent willingness to lecture before yacht club and Power Squadron groups, and readers will remember his fine article, "Forecasting Wind Shifts," in November, 1941, YACHTING. Like many men connected with aviation, he has a real interest in sailing and says at the start of his introduction: "Winds are of primary importance to airmen and seamen. . . . Weather, too, is important. . . ."

"Meteorology for Ship and Aircraft Operation" could be recommended no better than in the words of Lt. Col. Karl S. Day, U.S.M.C.R., who writes in his foreword, "The book is good reading. It is neither over the head of the average pilot nor does it insult his intelligence." That goes for the average yachtsman, too, and it would make a fine Christmas present whether he is in or out of the Service. G. J.

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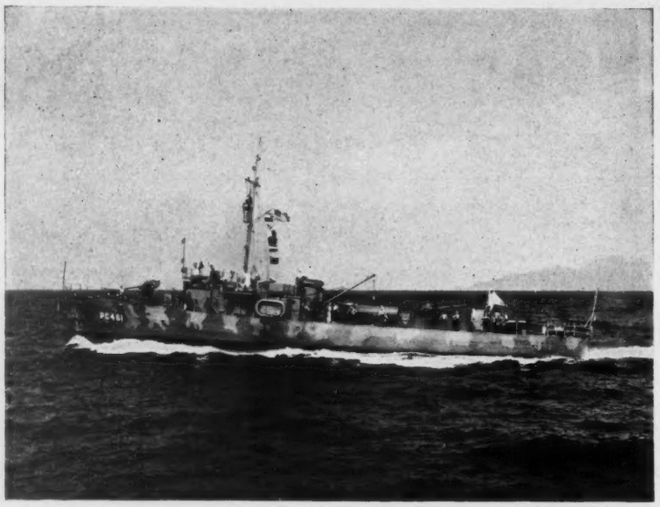

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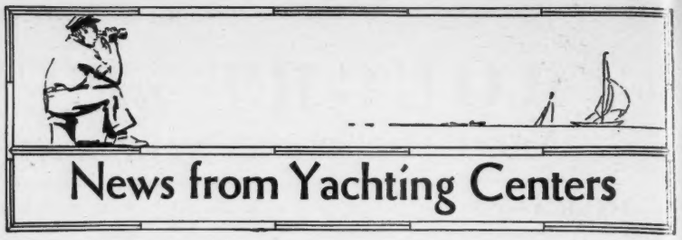

News from Yachting Centers

LAKE MICHIGAN BREEZES

By Warren T. Davis

▶ With the coming of the cold breezes, the Frostbiters almost shoved the large yacht stragglers from Chicago Harbor. This year, more large boats have hung to their moorings late in the season than in the past, due to owners being busy at war, war work or being uncertain of where they would haul out. As this is written, your correspondent can see from his office window the big Ten-Metre *Revenge* bowing to some healthy rollers off Monroe Street. In the distance is the long, sinister new aircraft carrier. She is talking with her blinker to the Naval Armory. Some hundreds of Navy men are drilling on the broad fields of Grant Park. Winter and war have come to Lake Michigan.

Many of our most enthusiastic yachtsmen are in the services, scattered from one side of the world to the other. Gordon Jones is reported from time to time as being here or there, and "there" has been on the other side of the world and then back again. Lt. Col. Logan McMenemy, who flies from way north to way south, is finding and reporting on cruising grounds that a better day will open to many of us. His letters carry a great nostalgia for the quiet, snug harbors of our cruising area. Frank Combith takes a PC boat into service as commanding officer. These are only examples of what is happening to hundreds of others from our ranks.

▶ John ("Bud") Snite reports for the Navy League that a total of 18,850 hours training was given 7,513 midshipmen and student officers by yachtsmen in this area. We've heard of this work in general terms; but think of the vast amount of time and effort put into this job by the organizers and the boat owners. Hats off to a swell job! A good example of one yachtsman's contribution is reported by the Jackson Park Y.C. *Ottmar's* log shows nineteen trips to Navy Pier between June 2nd and October 14th, with an average distance covered of 36 miles per trip. The 130 officers and midshipmen received 2¼ hours of instruction per man, and the crew spent more than 300 hours away from regular work to carry on. Many yachts were engaged and kept to the rigorous program over many months.

▶ As previously reported, the Cruising Club Navigation School is going great guns with a tremendous enrollment. Lots of uniforms on hand as the Coast Guard Auxiliary is sending its men to this class for their celestial course. Much credit is deserved and given to the Dean, teachers, markers and school committee of the club for the success of the school. A good bit should go to Harold Wood, Commodore for 1942 and reëlected for 1943.

▶ Jackson Park Y.C. elected Fay E. Rickard Commodore for 1943. Carlos Alling of this club turned his *Havanaca* over to the government and Bob Maher has sold *Capsicum* to Michigan City. Ed Baker, of Jackson Park, holds some sort of record, as he has sold his third boat to Uncle Sam.

▶ Honor Rolls are going up in various clubs! Southern Shore Y.C. was one of the first to start one. George Schaeffer, the able secretary of this outfit, broadcasts a plea for a radio. Just try and find one, George!

▶ The Michigan City Y.C. now has a Junior Club. Kendrick Cannon is Junior Commodore for '43. LaPorte Y.C. and Michigan City Y.C. raced for the Blackwood Trophy; Michigan City won by a score of 62 to 49.

▶ According to the Chicago Corinthian Y.C. "Squall," Colton Chunn and Tom Richards are instructing their Coast Guard Auxiliary. These men are also teaching in the Cruising Club School. I wonder if their wives see much of them. In their schooner *Fortune*, they took first place in the season races in the club for the Y.C. Division. Edward Schultz, in *Amigo*, took first in the series for the Arrows; Kronawitter's *Stormy* was first in the Lightning Fleet; Pagels-Wingard, in *Lady O*, were first in the Snipes, and *Orion*, owned by Bordner, among the Stars. Grace Peterman, in *Saga*, was first in the Ladies Skipper Series with Snipes.

▶ The L.M.Y.A. during the first week in November elected Ted Dunlap its Commodore for 1943, along with a strong, large group of other officers and directors.

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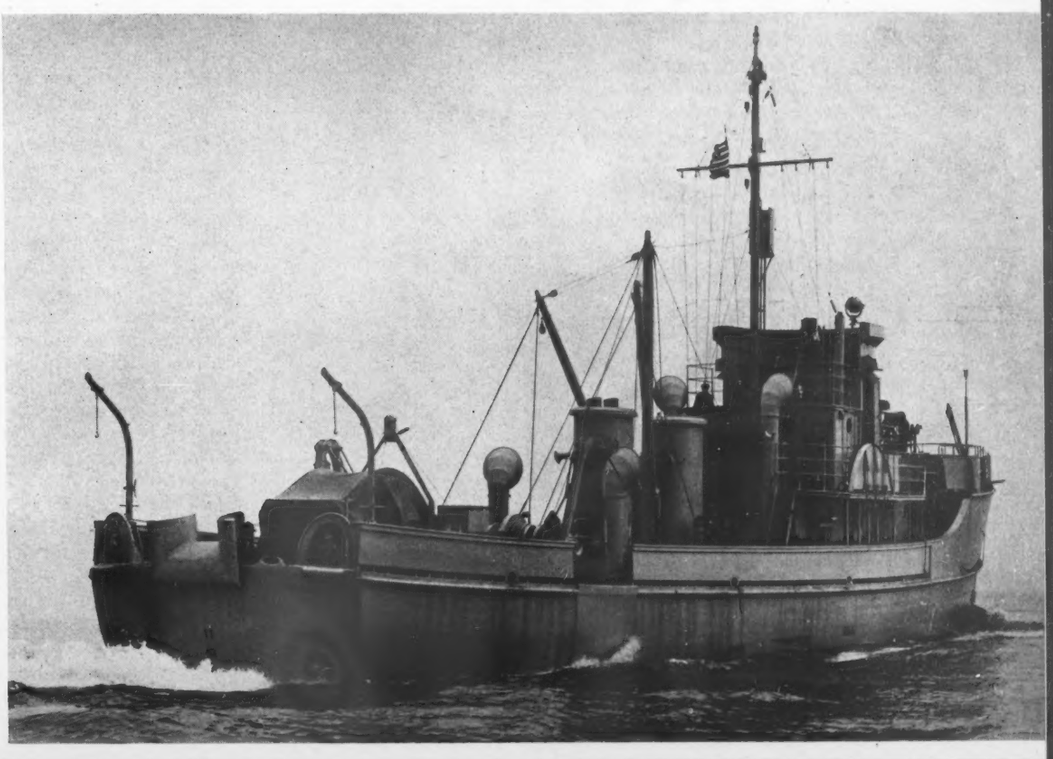

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MASSACHUSETTS BAY FLASHES

By Ed Earle

▶ The fall series of the Town Class of the Boston Y.C. at Marblehead carried almost through October, which was blessed by unusually fine Indian Summer Sundays. The winner of the five-race series was the *Chyon*, owned and sailed by Mr. and Mrs. Howard C. Dickinson. Carl Pierce's *Tip Top* was runner-up and Larz Anderson's *Suspense* took third honors. Instead of sailing the usual courses in Salem Bay, the fleet raced out to Pig's Rock Bell, the legal limit of defense area. Myron R. Hutchinson, who has been racing at Marblehead since 1904 and is one of the charter members of the Town Class, expects a 28-boat fleet out next summer.

▶ Carrying on the Boston Y.C. with extra zest, so that the more than 40 members now in the Navy and Coast Guard will have a place to come back to, was the keynote of the annual fall meeting of the oldest yacht club in New England. The picturesque old Rowe's Wharf Station was studded with Service blue. Vice Commodore "Dev" Chesterton, now commissioned in the Service, presided in place of Commodore Don Gardner, a Coast Guard lieutenant. A big tribute was given to Treasurer Schuyler Dillon, who leaves the club for the duration as a lieutenant-commander in the Navy. Lieutenant-Commander Burt McInnes, veteran race committee chairman, also "cruised" down from Portsmouth for the meeting. The important part played by yachtsmen and former cruising yachts, now in wartime gray, was illustrated in fine movies of the Coast Guard Offshore Patrol as shown by Lieutenant (j.g.) Frank Hendry, former commodore of the Quincy Y.C., and Chief Bosun's Mate Ken Miller.

▶ The Boston Yacht Club nominating committee elected at the meeting includes Lester Henderson, Cedric Arnold, W. W. Nichols, George Cutter, A. Saben, C. N. Collins and Dean James. The award for the "well-found ship," a supplement of the Cruising Club's Blue Water Medal, was presented by Albert Gould to George H. Sistaire of New Bedford, owner of the ketch *Elvira*, for her condition in last year's Gloucester-Halifax race.

▶ Carl Lindberg, one of the ablest and most popular figures in motor boat racing, who helped put across the famous Boston-New York outboard marathon of 1930, has joined Eldredge-McInnis, Inc.

▶ Among recent sales through the office of Eldredge-McInnis is the 40′ ketch-rigged Diesel-powered offshore cruiser *Yaarab*, from A. C. Kelley of Boston and Harwichport to Harold Hadley Holmes of Newton. Her home port will be Marblehead. The 26′ Crosby cat boat *Chief Squanto* has changed hands, from E. C. Nickerson of Cohasset to Wright Poindexter of Essex, Conn. Commercial sales include the 63′ oil screw vessel *Edith Dora*, from the North Bay Trading Company to Hamilton Brothers, Inc., Tampa, Fla. A 97′ Diesel-powered freight and passenger vessel, designed by Eldredge-McInnis, has just been launched at the yard of W. J. Reid and Sons, Winthrop.

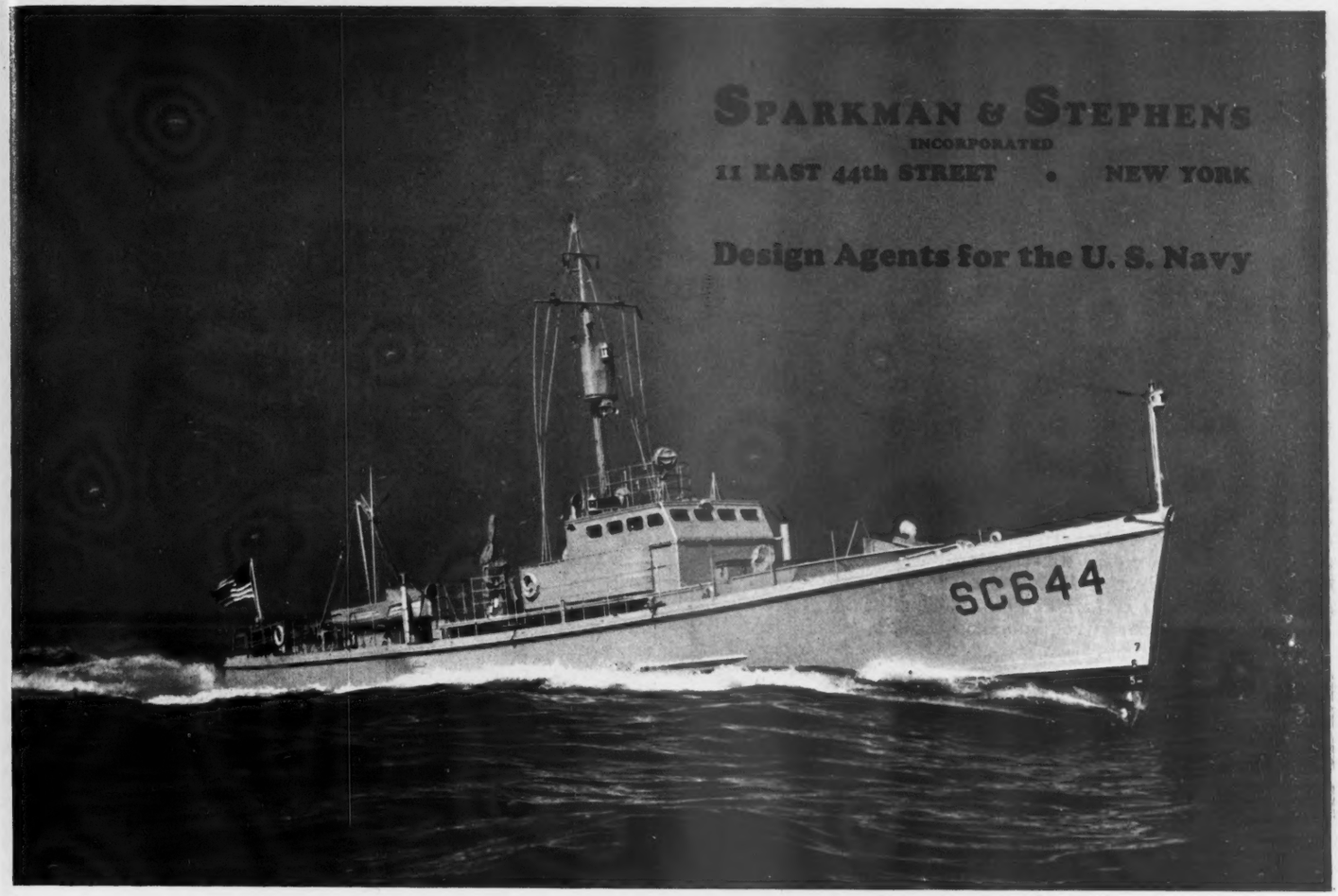
▶ The schooner *Gertrude L. Thebaud*, "champion of the North Atlantic fleet," has been taken over by the Coast Guard from her skipper, Captain Ben Pine, internationally famous racing fisherman.

▶ More than 200 yachtsmen turned out for the 74th Anniversary Cup Night at the South Boston Y.C. on the evening of November 7th. Commander Frank Meals, U. S. C. G., Captain of the Port, expressed his appreciation of the coöperation of the yachtsmen in the Dorchester Bay area which helped lighten his duties. Commodore John E. Murphy, of the South Boston Y.C., and Commodore George Hamilton, chairman of the legislative committee of the Massachusetts Bay Y.C.A., also praised the Coast Guard for making racing possible up to the limit of the restrictions.

Season prizes, mostly useful articles, were awarded. They included: Class I 18-Footers, Don Mackintosh's *Speedy;* Massachusetts Bay 15-Footers, tie between Tom Moroney's *Flirt* and Harry Arion's *Heron.*

Other season prizes were: Indian Class, Commodore John E. Murphy's *Papoose;* Zenith Class, Gerry Harrison's *Nona;* Penguin Class, Bill Walsh's *Pink I* and Pat Wallace's *Frolic II;* special cruising prize, John Stack's sloop *Highlander*. The Morrison Memorial Trophy, emblematic of the junior championship, was won by Skipper John Stapleton and his crew, Bob Ware and John Donovan. Ware was the winning skipper last year and crewed this season for Stapleton.

▶ The Wollaston Y.C. had a successful season under Commodore Ted Ray, holding 35 races and nine twilight contests. More than 30 members are in the services, ranging from Colonel Parker down to A. B's. The club will carry on, since a new heating system and other improvements have recently been made. Major Arthur Hartford handled the races this past season for Major John Carleton, in service in the field artillery.



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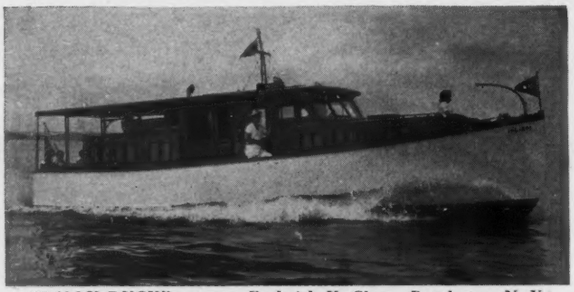

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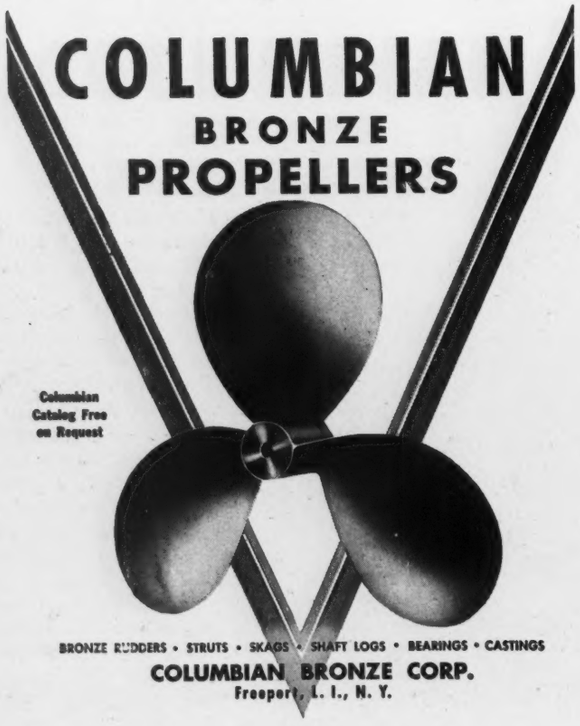

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FROM SAN FRANCISCO BAY

By Jesse L. Carr, M. D.

▶ Navy Day was celebrated by San Francisco yachtsmen on October 25th, the Bird Boat Fleet again being donated for the day, accommodating all Navy men who wished to sail or race. The All-Navy Regatta was won by Lt. Chandler Smith, sailing Col. Conroy's *Teal*. Lt. K. M. Weaver, sailing the *Kittiwake*, was second, and Lt. J. C. Halpin, with the *Puffin*, third. Trophies awarded to the winners were provided by the Navy League and an orchestra from the U.S.S. *Pennsylvania* furnished music for dancing from 3:00 to 6:30 p.m. at the St. Francis Y.C. Within a reasonably short time, this Navy Day will well be sailed by most of the old-time San Francisco yachtsmen.

▶ Hal Stuart, secretary of the Richmond Y.C., and Vice Commodore Bill Warren, of the same club, will both be in the Naval Reserve shortly, as will John Walsh and Jerry Carpenter, also of the Richmond club.

▶ Meanwhile, Navy restrictions grow more stringent and there have been several boats interned for the duration recently because of being found inside the net area, taxiing too close to Government docks, or passing under the wrong span of the Carquinez Straits railroad bridge. Two boats were also picked up during the past week for failing to dock before the legal hour of sunset.

▶ Newton Neustadter is dead, leaving behind him a record of one of the most active charter members of the St. Francis Y.C. Persisting and almost as perpetual as his memory, are the Cozzens prints and the large chart table which are among the most attractive of the furnishings in the Men's Grill at the St. Francis Y.C. He gave these, as well as his promissory note, to the club when it was young and still struggling.

▶ Although many of the new Federal and Navy regulations are more stringent as regards the port of San Francisco and environs, actually many regulations have been somewhat relaxed. The sardine fishing fleet is again operating out of San Francisco under convoy and supervision, and its boats are allowed to moor outside the net area on certain occasions. As yet the change in this regulation has not been applied to yachtsmen and those who fish for pleasure, but pleasure fishing and outside boating are again possible from the Santa Cruz area.

▶ Season championships have finally been recorded by Harry Struthers, the delay being due to several protests which had to be settled before the final championship figures could be released. There is still some question about Division II but the final hearing on the protest in that class is to be held soon. In spite of the numerous objections to handicap racing, the division of honors is remarkably close to the number of boats which each fleet has in active competition, and these figures are, in the main, a direct vindication of the handicapping system.

SEASON CHAMPIONSHIPS

Class	*Boat*	*Owner*	*Club*
7	No competition		
9	*Pinafore*	Romaine	Corinthian
11	*Pathfinder*	Arens	St. Francis
12	*Holganza*	Lowrie	Aeolian
13	*Towhee*	Smith	Corinthian
14	*Altom*	Bolger	Aeolian
15	*Djinn*	Egberg	Richmond
17	*Kawii*	Simpson	Corinthian
Star	*Indian*	Newman	San Francisco
Bear	*Pola*	Vincent	Richmond
Big Bear	*Susan II*	Carlisle	Corinthian
Golden Gate	*Smoothie II*	Atkinson	Aeolian
Birds	*Kittiwake*	Hanan	Corinthian
Farallone Clipper	*Patita II*	Carr	St. Francis

▶ It was well for many yachtsmen that the sailing season ended as and when it did, for the sail lofts of San Francisco and environs are stacked high with the canvas of pleasure boats, needing repairs and unable to get them. According to the figures this week, there are only thirteen men in the Sailmaker's Union in all of San Francisco, and Government contracts are being turned down by the dozen. Inasmuch as these come first, repair of sails for pleasure boats in this vicinity will apparently be pretty much a home-made job for the duration.

▶ Boat sales have been particularly active in the Bay region in the past month, especially in the small cruiser division. Among these are the sale of C. R. Kusick's *Frances Kay IV* to Mr. White. Two Fellows and Stewart 30′ cruisers, and the *Mar Jay*, have also changed hands.

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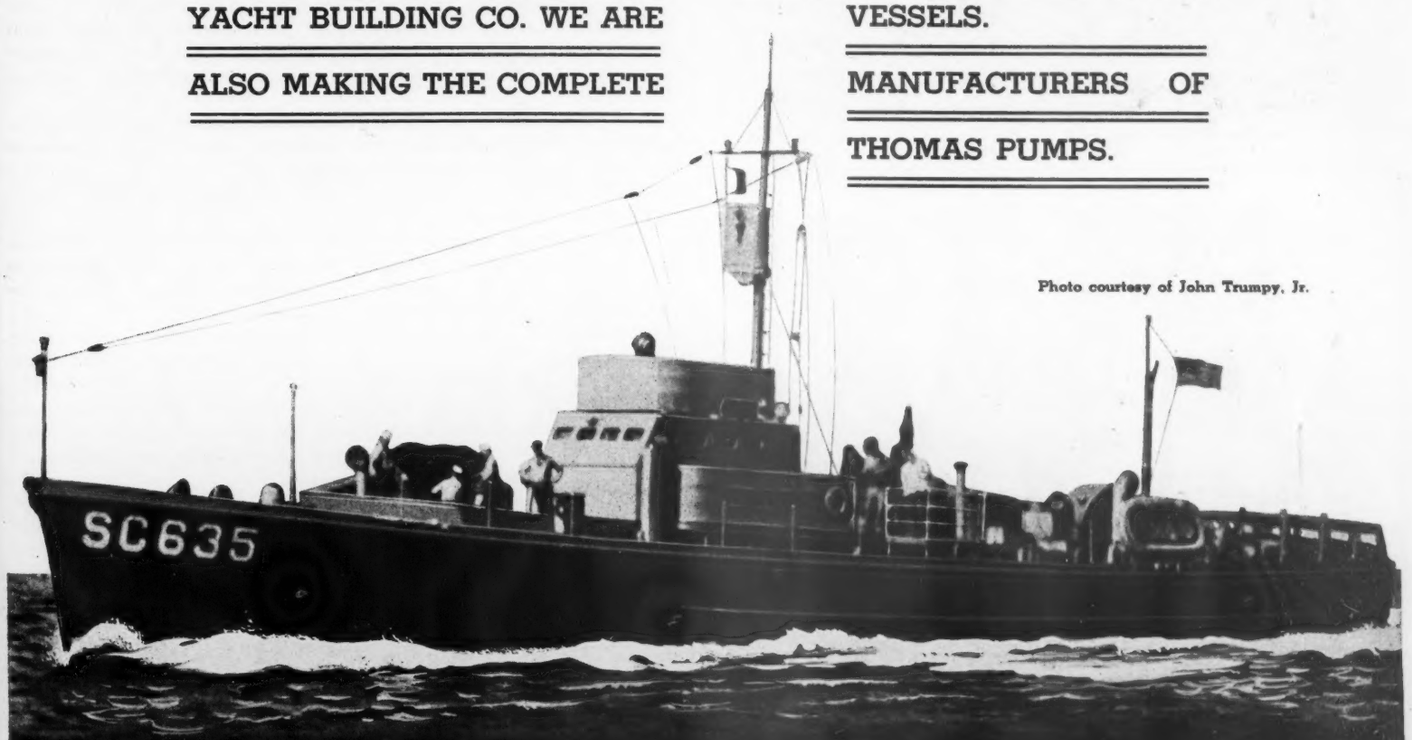

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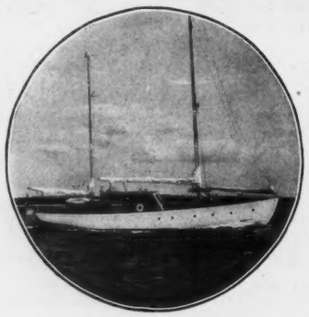

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THE SOUTH SHORE OF LAKE ERIE

By John G. Robinson

▶ The Erie Y.C. wound up a most successful season on November 7th with a Trophy Dinner at the Anchorage, followed by presentation of prizes.

The big winner was Jim Rider in the Auxiliary Class, who cleaned up not only the club's auxiliary races but wandered far afield and won almost every auxiliary race in which he competed with his yawl *Carina*. *Carina* took the Gilmore Cup and the Fall Championship series of the E.Y.C., the Falcon Cup in the annual Rocky River to Mentor event, the Interstate race (Erie to Mentor Harbor), and took also the annual Inter-Lake Yachting Association's championship in the yawl class at Put-in-Bay in which *Enigma*, owned by Ken Eckert of Erie, was second.

Bob Mangan was the big winner in the Star Class, taking the Pomeroy Trophy series of three races, the Flag Officers' series, also of three races and Club Championship series. F. Faulhaber won the Night Race in the Star Class. Bob Van Cleve took the Club Championship series and also the Night Race in the 18-foot sloop class, with Don Aichner winning the Flag Officers' series. Honors were divided in the Lightning Class, with Jim Taylor taking the Flag Officers' series, Betty Lou Shafer the Night Race and Frank Zurn the Club Championship. In the Sea Gull Class, it was all Bob Sternberg in Flag Officers' Night Race and Club Championship series. In the Open Class, the Club Championship honors went to Jean Graham, the Flag Officers' series to Dick Gebhardt and the Night Race to Dave Lewis.

The annual Ladies Day race went to Nancy Lee Graham; Junior Championship honors to Jim Walker and the Bruce Dell Trophy long distance race (Erie to Dover, Ont.) to Charles Benz.

The Erie Y.C. Lightning sailors won the home and home series with the Mentor Harbor Y.C. Lightning skippers.

▶ The Mentor Harbor Y.C. annual Sailors' Dinner, the official wind-up of the 1942 racing season, was held at the Mayfield C.C. on November 7th. Buffet style dinner was served at eight o'clock, followed by presentation of the season's prizes with Hal Kneen, chairman of the Race Committee, as toastmaster, and newly-elected Commodore Charles Stewart presenting the awards.

Fleet championships were presented to Dick Bostwick, who won in the Auxiliary Class, Division One, with his *Falcon;* Herb Bailey, in Division Two, with *Lady Luck;* Tom Jones, winner in the Rhodes "27" Class, with *Cheemaun II;* and Hal Kneen, in the Great Lakes Class, with *Delilah*. Kneen was also awarded the Swetland perpetual trophy.

The hard-fought Interlake Class fleet championship went to Norman Cole, also the Charles S. Stewart Perpetual Trophy. Dick Woodbury took the Class One championship with his *Lodestar* and Hank Verbsky the Lightning Class championship with his *Greta-Anne II*.

Other trophies presented were: the Family Race Trophy, presented by Roger White, to Dick Newpher; also the Gordon Douglass Trophy to Dick Newpher, a Great Lakes 21 Class Trophy to Libby and Bill Treuhaft.

A surprise flag award was made to Art Williams, official starter in all Mentor races. Art was on the job every Sunday morning, rain or shine, blow high, blow low, and was heartily cheered when he took the flag.

▶ The Lakeside Y.C. held the first Sailors' Trophy Nite in the history of that club on October 31st. Long known as an almost exclusively power boat organization, the sailors have been gaining steadily and this year had a season-long schedule of racing in Auxiliary, Star and National Classes. Jeff Klassen, owner of the auxiliary ketch *Ebb-Tide*, took the one perpetual trophy in that class, Sig Mueller winning the club championship in the National Class and Ed and Ray Peters annexing Star Class honors.

▶ Sergeant James L. Kopach, owner of the auxiliary *Playboy*, was home on furlough late in October and managed to work in one good day of sailing before his boat was hauled out. He has been in the Army for more than a year and it was the first time he had seen his boat in the water this season. Kopach won the Falcon Trophy in 1939 for the Mentor Harbor Y.C.

▶ Commodore Charles S. Stewart, of the Mentor Harbor Y.C., has bought the Bounty Class auxiliary sloop *Shangri-La* from Eugene Boughton, of the same club. Boughton is now in active service on the East Coast.

▶ Larry Ptak, of the Cleveland Y.C., has sold his auxiliary Friendship sloop *Sea Bird* to Robert Cowen and Britton Day, of Clifton Park.

▶ Harry Chandler, of Rocky River, has bought George Billington's big auxiliary yawl *Adeltha* and has moored her in Clifton Park Lagoon for the winter. George Billington is now a lieutenant-commander in the U. S. Navy and on active service. Bob Overbeke, of the Cleveland Y.C., has sold his sloop *Rooster* to Wayne Patten and R. Kingsley.

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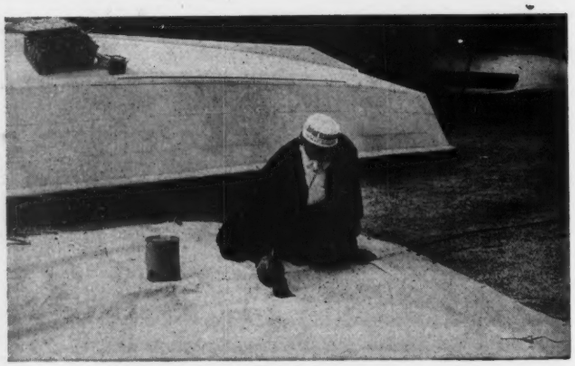

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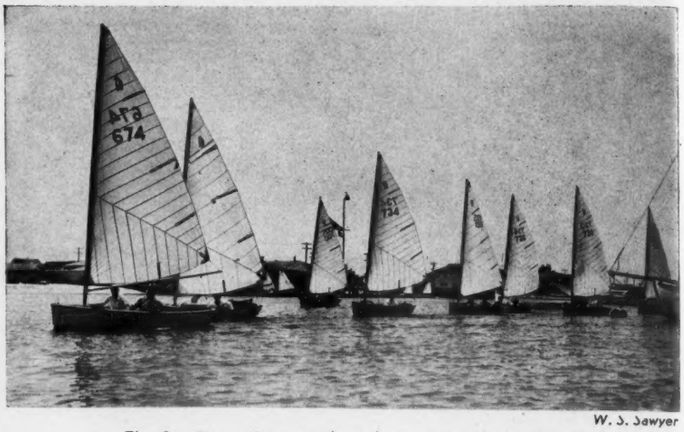


W. S. Sawyer

The San Diego Penguins have been active this season

PENGUIN CLASS PATTER

By Penguin Pete

▶ The day of the Jap attack on Pearl Harbor, skippers of the Penguin Class in the Chesapeake Bay region staged their first Frostbite regatta of the season at the Maryland Y.C., Baltimore. On the eve of the first anniversary of this important day, Penguin sailors will hold their first "Victory Regatta" at the same club. Entries are expected from Baltimore, Annapolis, Washington and Alexandria for the one-day affair. Last year, Penguin skippers came from as far as Philadelphia. Roger Carson, of the Maryland Y.C., will be host to the visitors this month.

▶ Nine Penguins from the Naval Training Station at San Diego, Calif., competed in the Penguin championships for San Diego Bay in October. Twenty-two boats came out in one of California's typically windy days. There were several capsizes and some broken spars, but all hands called it a real show. Winner was Joe Jessop in his *Penguin*. In addition to the big prize, he was awarded an engraved belt buckle and belt. Similar awards were made to Ashley Bown, second, and Walter Sumner, third.

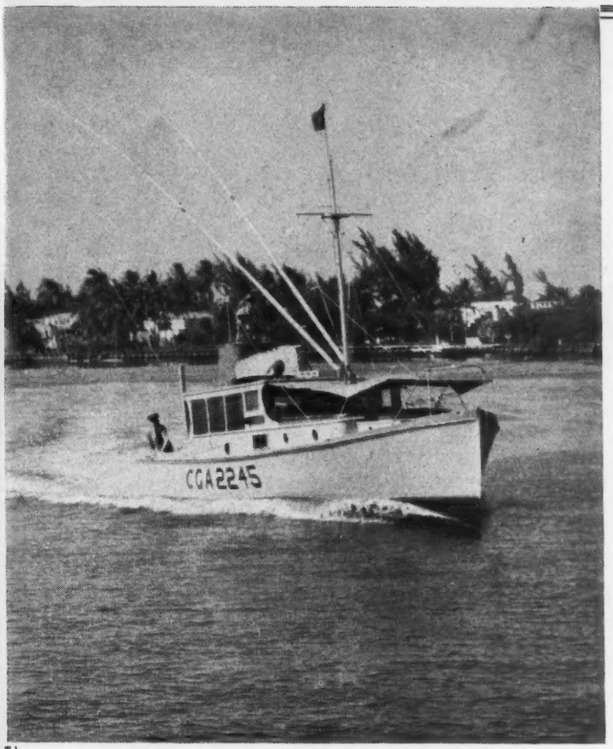
Prizes also went to the first three Navy-manned Penguins to finish. Machinist's Mate (second class) Hartley Batey was first to cross the line and he received an engraved leather traveling kit. His crew was Seaman (second class) J. J. Eben. The second service Penguin to finish was one manned by Lt. W. C. Vance and Lt. M. B. Engel. Third pair in were D. M. Tinckom and R. W. Struve, both seamen, second class. All prizes were donated by the San Diego Y.C. Luncheon was served there to over 75 persons following the first race, with service members as honored guests. The regatta is expected to mark the beginning of many Penguin events between the Bay Penguin fleet and the Navy.

▶ A group of Baltimore and Washington Penguin sailors traveled to South River, off Chesapeake Bay, last month for a round-robin series of informal races. The group was guest of Col. E. W. Sheehan at his summer home. Following races, a buffet supper was served around a campfire on the beach. The wind was light, but the weather was balmy, as it can be only in the Bay country in November. Ten boats were used by the group, skippers rotating, but never sailing their own boats. Joe Lewis, from Washington, whose *Slug* has never done well in competition, was high scorer at the end of eight races. Walter Lawson, also of the Capital and 1941 national Penguin champion, was second, 15 points behind Lewis. Jack Reckord, of Baltimore, placed third, one point behind Lawson. This was accomplished despite the fact that Reckord was disqualified in one race.

▶ Penguin interest is reported in England, despite the war, according to National Secretary Ralph Youngs. Recently he sent two sets of plans overseas, one for a member of the Royal Navy and the other for a man at Cowes. With big incomes here and throughout the world apparently doomed for some time to come, it should be the age for small boats, including Penguins.

▶ A new Penguin fleet at Haverford College was "christened" late in October when the Haverford Nautical Club met Pennsylvania.

▶ Penguins competed in the fall racing of the Potomac River S.A. at Washington, which closed last month. Twelve boats came out in the six-race series. Winner was Lawson in his *Potlatch;* second was Reckord's *Side Car*, and third went to *Seabiscuit*, sailed by Beverly Youngs, 13-year-old daughter of the Class secretary.



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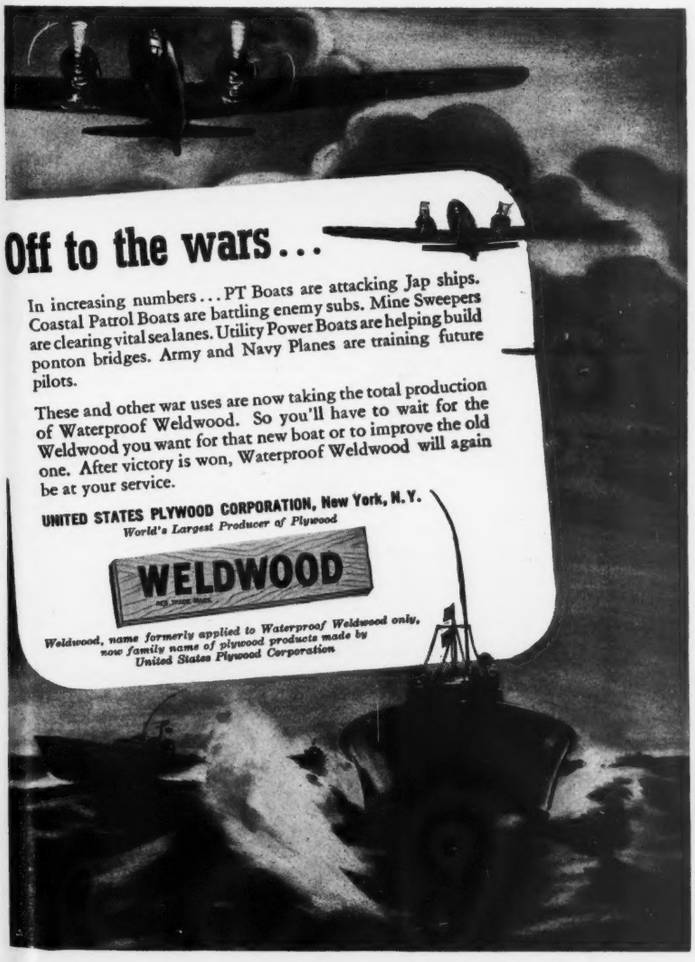

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LAKE ONTARIO NEWS

By W. Peck Farley

▶ A salute for Pearl Harbor Day to all Corinthians who are now serving with the Armed Forces: May you have safe voyaging and a speedy return to sailing on calmer waters.

▶ Members of the Sodus Bay Y.C. have elected the following officers for the coming year: Commodore, Paul E. Emerson; Vice Commodore, Donald Welch; Rear Commodore, Altus P. Croucher; Sec. & Treas., Elliot Marsh.

Tim Croucher and Webb Sheehy, of the Sodus Bay Y.C., are instructing night classes of the U. S. Power Squadron in Rochester. The classes have a large enrollment.

Newark, N. Y., eighteen miles from Sodus Bay and a nautically minded town if there ever was one, has a weekly column in its newspaper headed Yachting Yarns, which should help racing enthusiasts to mark time through the icebound months until the warning gun next Memorial Day.

It is anticipated that Power Squadron classes will be conducted in Newark this winter under the supervision of Peter Kemper and Ex-Com. William Croucher. Bill plans to put to constructive use his experience gained in World War I, to help the local lads learn the Morse code.

▶ The Newport Y.C. held its annual meeting at the Rochester Y.C. house in October. The following officers were elected for the coming year: Commodore, Howard Jones; Vice Commodore, John End; Secretary, Frank Coleman; Treasurer, Milton Delorm.

Fleet Captain for 1943 is Earl Klem who won the 1942 Fleet Championship.

The club is proud of the accomplishments and spirit shown this past season. There is a fleet of more than twenty boats of which fifteen or sixteen are active in racing. The club sailed twenty-two races, which meant an active season.

▶ The Annual Meeting of the Rochester Power Squadron was held in October. Lieut. William A. Smith, U.S.C.G.R., Chairman of the War Committee as well as of the Legislative Committee of the U. S. Power Squadrons, and Captain of the Staten Island Division of the Coast Guard Auxiliary, was the guest of honor. He gave a most interesting address on the relations between the U.S.P.S. and the Coast Guard, with sidelights on activities of the Coastal Patrol.

The following officers were elected: Commander, Daniel M. Beach, Jr; Lt. Commander, Arthur J. Gosnell; 1st. Lieut., Lowell W. Shields; Sec. & Treas. Harold L. Field.

The Rochester Power Squadron now numbers 104 members, of which 26 are in the armed forces. There is one Gold Star on their roster for Robert Frederick Read, of the Navy, who gave his life for his country in the Pacific in August.

Following Lt. Smith's address, the R.A.F. sound movie "Target for Tonight," depicting air raids over Germany, was shown.

▶ The Algonquin Y.C. has elected the following officers: Commodore, Arthur Bartold; Vice Commodore, Ted Sweet; Secretary, Olive Meyer; Treasurer, Lillian Ash; Comet Fleet Captain, Richard Claver; Comet Fleet Sec'y, William Stark; Lightning Fleet Cap't, Edward Crane; Lightning Fleet Sec'y, Doris Ash.

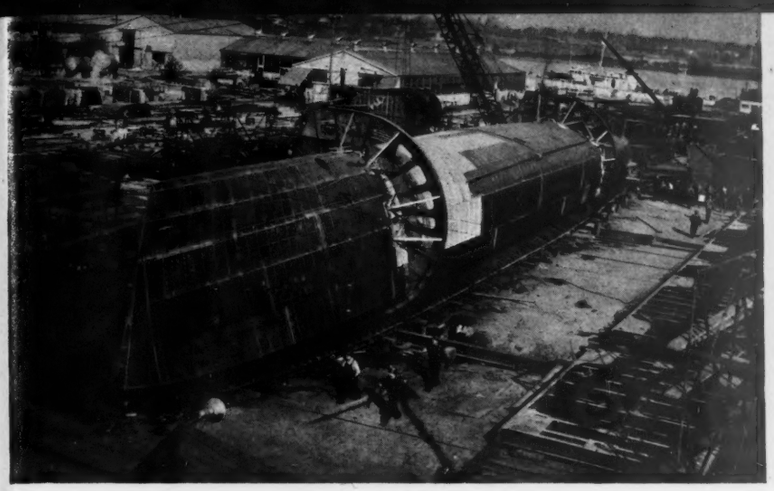
▶ The Youngstown Y.C. is quite active in the U.S.C.G.A. Flotilla 46 and in the U.S.C.G. Temporary Reserve. William Cannon and Bud Doyle are Chief Boatswain's Mates in the U.S.C.G. Temporary Reserve and the former is also Vice Commander of the U.S.C.G.A. Flotilla 46, of which Joseph Green is Commander. Henry C. Yale and Adolf Haman are Seamen, 1st Class, in the U.S.C.G. Temporary Reserve and Richard C. Robbins holds the rating of Coxswain with the outfit.

At the annual banquet of the Youngstown Y.C., cups were awarded to the following members. "Dude" Moyer received the Rowland Cup for sailing *Iduna* to four firsts in the series. He also won the Tycoona Cup. Bud Doyle, skipper of *Sprig*, won the Hill-Manning Trophy, the Alarm Trophy and also brought the Barthel Trophy back to Youngstown Y.C. "Joe" Parker's *Alarm* won the Cayuga Trophy.

▶ The Rochester Y.C. has chosen the nominating committee to make up the slate for the 1943 season to be presented at the annual meeting.

The 65′ schooner *Nor'Easter*, owned by Carol Gray of the Larchmont Y.C., which has summered in the waters of Lake Ontario, will haul out at the Rochester Y.C. yard.

Winter haulouts at R.Y.C., under the able direction of Greeley Strickland, are proceeding according to schedule but several of the larger boats have been asked to stand by and postpone haulout pending possible service with the Navy or Coast Guard.



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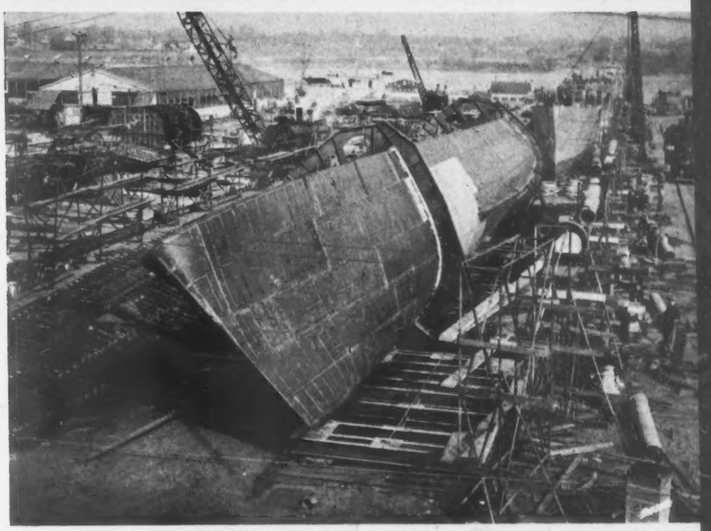

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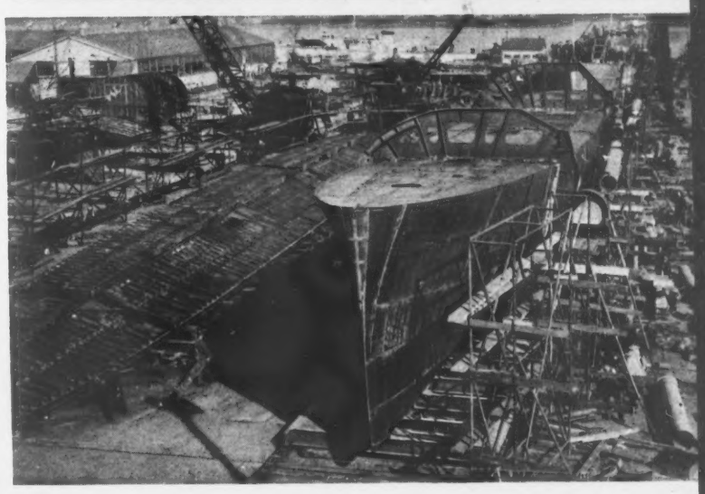

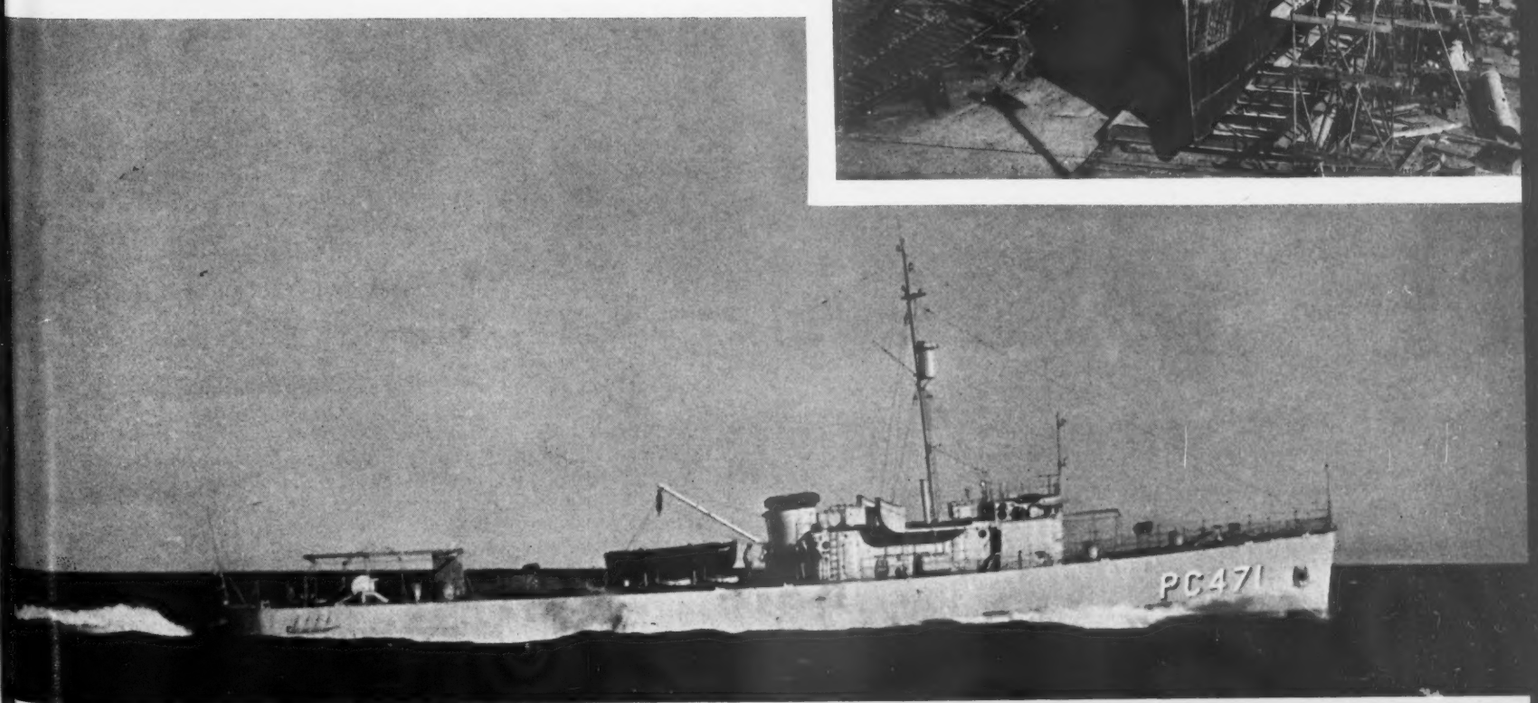

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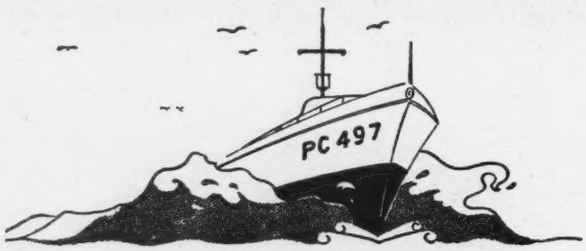

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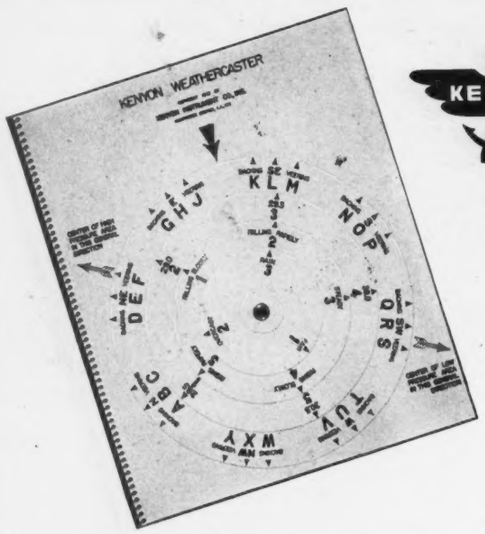

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NARRAGANSETT BAY GOSSIP

By Jeff Davis (Old Doc)

▶ Trying to dig yachting news out of Narragansett Bay just now is about as hopeful as trying to catch swordfish in the bathtub. Racing, except for the Frostbiters, who have just begun, is through, all the larger yards are busy with government stuff and, even where they have a little room for storage, they can't spare the men to do much hauling. The smaller yards are full or else have what space isn't occupied promised to old customers. There will be more of the larger yachts in wet storage this winter than ever before, although most of them suitable for patrol work have been given, loaned or sold to, or commandeered by, Uncle Sam.

▶ With the dinghyites, Ed Raymond and Fred Gade came up from Connecticut and finished one-two in the Bridges Trophy invitation regatta sponsored by the Narragansett Bay Chapter of the N.A.D.A. Raymond, winning it for the third time, puts the trophy out of circulation. He won four firsts and two seconds in the seven races but, instead of getting four first prizes he got only one. In this particular regatta there is a first prize in every race but nobody can have more than one. If anyone wins a second race, the first prize goes to the second boat, unless she has already got one. If she has, it's offered all the way down the line until it reaches some skipper who, so far, has been *prizeless*. So Raymond got one of the souvenirs for winning the first race. Then Russ Boss won the second race and got one because he'd earned it. Then, just because both Raymond and Boss had beaten him, Bill Dyer got one for a third place. Fred Gade got it in the fourth race for winning second. Then Harlan Moses got it in the fifth race because Dyer, Raymond and Gade beat him; and Fred Thomas got the sixth because Raymond was the only one who beat him. But, when it came to the seventh and last race, all the previous winners (?) except Moses had to be scratched so Fred and Bill Thurber took first prize won with a fifth place.

▶ Then we had another freak dinghy regatta a week later. It was the annual men's *vs.* women's college shindig sponsored by the Brown University Y.C. and sailed on the raging Seekonk. When the Rhode Island State College skipper showed up with a girl in the first race, and the Brown skipper jettisoned his regular crew and shanghaied a Pembroke girl for his crew, it added a coed section. Harvard sent two men, Holy Cross sent two, Wheaton sent two girls, Pembroke sent two girls and, as explained before, the two home college crews went coed. As a regatta, it was a burlesque. There wasn't any wind except for an occasional cat's-paw — tiny cats at that — so the committee set the first leg of the course into a head tide, reasoning that if the boats couldn't stem it, they could drift back with it.

The second race was another one soothing to the nerves. Sitting on the club piazza, you could range a boat in with a tree on the opposite shore, take a nap and, when you woke up and looked, the tree was just as likely to be ahead of the boat as the boat ahead of the tree. Four teams tied, so straws were drawn. R. I. State proved the winner.

▶ *Short ends:* The Newport Y.C. gave a dinner to John Scannevin, the first commodore and only charter member now on the roll, and made him an honorary life member at the meeting which followed. New officers elected were: Frank H. Norton, commodore; William H. Oehrle, vice commodore; J. G. Matley, rear commodore; J. T. Easton, secretary; Van J. Vanicek, treasurer; P. K. Morris, measurer; and William H. Oehrle, chairman of the race committee. . . . Newly elected officers of the Barrington Y.C. are: Dr. George A. Bridges, commodore; David A. Pepperill, vice commodore; Harlan A. Moses, rear commodore; Norman McCulloch, treasurer; John Howland, secretary; and Ray Colley, chairman of the Race Committee. . . . The East Greenwich Y.C. has elected Wallace H. Humphrey, commodore; Joseph A. O'Donnell, vice commodore; Dr. Harold C. Lockwood, rear commodore; C. Victor Nylen, secretary; Richard C. Leland, treasurer and Joseph P. Lawton, chairman of the race committee. . . . Louis P. Bartlett, who recently bought the power cruiser *Babs* from Arthur Slater, has sold her to George Cummings, of Pawtucket. . . . Slater, who bought the ketch-rigged motor-sailer *Migrant* after the 1938 hurricane and had her rebuilt, has sold her to Albert J. Carpenter, Sr. and Jr., and Robert E. Meek, who have taken the boat to Boston. . . . Luther Freethey has bought the 26′ power boat *Barbara*, affectionately known as "The Bucket," from Jack Tiplady. . . . William S. Moody, of the Edgewood Y.C., has bought the auxiliary sloop *Solitaire* from C. Adrien Sawyer, Jr., of Boston. . . . Clarence Sayles has sold his auxiliary cutter *Radiant* to Thorsten E. Nelson, of Newport. . . . H. Leon Laycock, of Providence, has sold his Matthews "38" *Doreon* to Myron K. Stone, of Boston. . . . Harry F. Livezey has been reëlected commodore of the Edgewood Y.C.; Walter E. Winters, vice commodore; Dr. Russell R. Hunt, rear commodore; Frederick H. Wilson, secretary; Llewellyn C. Roffee, treasurer; and Arthur L. Wood, measurer. A new office, assistant to the treasurer, was filled by the election of Walter D. Gardner.

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CHESAPEAKE BAY ACTIVITIES

By Bugeye Bill

▶ Sailors in the Nation's Capital wound up their fall series under the auspices of Potomac River S.A. early last month, with a total of 47 boats in four classes competing at one time or another. It was one of the largest groups of small craft out on the Potomac for several years.

Prizes for PRSA's spring and fall series were awarded at the end of the month at a buffet supper and dance at Capital Y.C.

The following first place prizes were awarded in the fall series: Warren Mitchell, *Vanguard*, Chesapeake "20s"; Clarke Daniel, *Robert E. Lee*, Comets; Walter Lawson, *Potlach*, Penguins; and Col. W. S. Conrow, *Vim*, Handicap Class. Second place prizes went to Judge Prentice Edrington, *Lady Avon*, "20s"; Edward Braddock, *Toby*, Comets; Jack Reckord, *Side Car*, Penguins; and Cooper Lightbown, *Honey Chile*, Handicaps. Third prizes were presented Capt. E. L. Cochrane, *Scuttlebutt*, Comets; Beverly Youngs, *Seabiscuit*, Penguins; and F. W. Weiser, *Gypsy*, Handicaps.

▶ Earlier in the fall, the Annapolis Y.C. fall series came to a close on Severn River and Chesapeake Bay. Seventy-five boats, in eight small classes and three cruising divisions, competed in the series. Yachts from Gibson Island and Baltimore also participated.

Outstanding yacht in the larger classes was Norman Owen's *Gallivant*, a New York "30" from Gibson Island Y.S. She won first prize in Class B and was high scorer for the fleet of fourteen starters. Second in total points and first in Class A was E. T. Bailly's *Yawlcat*, also from G.I.Y.S. The winner in Class C was Emory Rice's smart little *Estelle II*, an A.Y.C. entry.

The Naval Academy's *Highland Light*, Comdr. Clarke Withers; *Vamarie*, J. D. Riggins; *Spindrift*, C. E. Williams, and *Freedom*, Comdr. C. B. Judge, finished in that order after *Yawlcat* in Class A. *Alert*, *Resolute* and *Frolic*, Navy yachts in Class B, finished third, fourth and fifth, respectively. Thirty-four midshipmen manned the Academy's whaleboats, knockabouts and 14-foot International Dinghies, to participate in the series.

In other small classes, John Harper with his *Kingfish* won the Star Class. John A. Coughlin's *Riptide* was first in Division I "20s" and Cliff Jones' *Fil-Kay* won in Division II. The Hampton One-Design Class was taken by W. W. Kenny in *Skit*, and William H. Lewis won in the Moth Class with his *Poo-Cat*.

▶ Corinthian Y.C., Washington, will elect new officers at its annual meeting this month. Members were given a formal report recently of the outstanding work of the C.Y.C. Sea Scouts during Washington's record-breaking flood. The boys put in 366 man hours of labor during the flood.

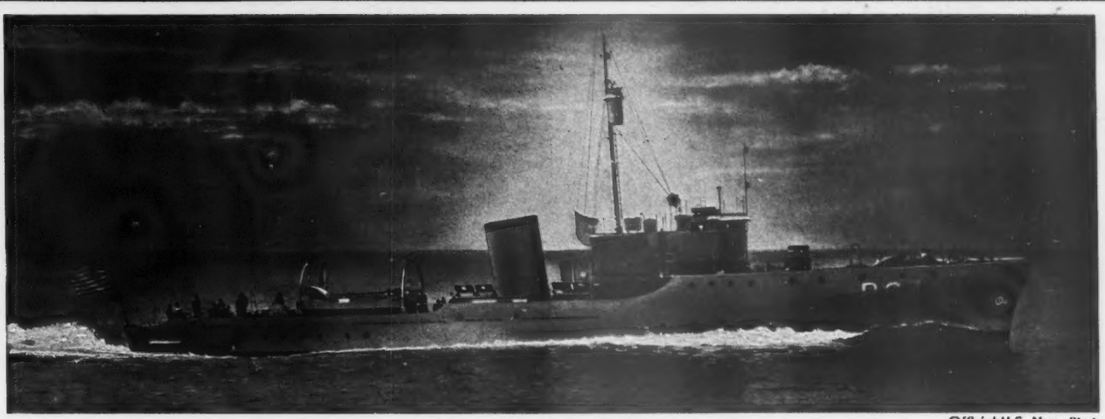
FLORIDA TRADE WINDS

By Vivyan Hall

▶ By the middle of October, it was said along the Florida waterfront that if we got by the next full moon we would be clear of all hurricane danger. The moon got brighter and the tides got higher. Then, ten days after the full moon, here came the warning of a tropical disturbance. So much for legend. The surprising thing was how fast the boats moved inland out of the way. The Navy and Coast Guard boats went up the Miami River in a steady gray stream. Mine sweepers, sub-chasers, air force rescue boats, Coast Guard conversions — it was like a fleet review.

▶ Still tied up in the St. Johns River at Jacksonville is Miss Barbara Carstairs' big three masted schooner *Sonia*. Apparently out of commission, she would make an excellent training ship for the large drafts of green hands now coming into the Navy and Coast Guard. Farther south, as in former winters, yachts are being used for living quarters. Paul Hammond, now a commander in the Naval Reserve and attached to the Gulf-Sea Frontier headquarters at Miami, has chartered Mrs. Jane Fisher's 85' *Sanjan* and moored her to one of the Venetian Islands. The charter was arranged by H. Marshall Oliver. Major Mackay has bought the houseboat *Shangri-La*, formerly owned by Commodore Edward Turner of the Quarterdeck Club and has moored her at Belle Isle. B. W. Lamson's houseboat *Venture* has been chartered by Commander T. H. Green of the Seventh Naval District.

▶ Two more mine sweepers, the *Admirable* and the *Adept*, have been launched by the Tampa Shipbuilding Corp. At nearby McDill Field, the shoal draft swamp rescue boats are being equipped with air rudders as well as air propellers. Developing concrete construction, the Tropical Marine Ways of West Palm Beach launched the cargo boat *Phantom* late in October. A 92-footer and Diesel powered, she is a "try-out" for larger boats. Sixty-eight tons of concrete and ten of steel were used in her hull which has a cargo capacity of 100 tons.



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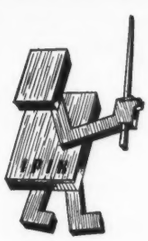

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▶ Two interesting announcements have just been made. Naval official tell of the formation of a new firm, the Dade Drydock Corp., at Miami t build and operate a drydock. Officers include executives of the Miam Shipbuilding Corp. and Merrill-Stevens Co. with Alex Balfe of the latte named president and Paul Buhler of the Shipbuilding Corporation vic president. With local facilities now limited to marine railways, a regula drydock will be an important addition to ship repair facilities in this area Other news is that although the Navy inspection board reported smal boats of the type demonstrated by the National Boat Builders Association unsuitable for anti-submarine operations, the Senate Committee on smal business is going into the matter.

▶ Though naturally curtailed, cruising and fishing will be possible in Florida this winter. Fuel rationing of both gasoline and Diesel oil will cal for a lot of planning as a maximum of 250 gallons of gas is allowed in any six-months' period. The fuel allowed applies to the boat, whether sold or chartered. Diesel restrictions are yet to be announced. Owners and yacht captains, as everywhere, must have identification cards from the Coast Guard, which also issues operation permits, numbers and departure licenses. In fact, the Coast Guard now handles all regulations for operation in domestic waters, including the Gulf Stream and the inland waterway. There is no running at night and boats must return from the Gulf Stream by sunset. In inland waters, they may anchor clear of the channel with riding lights dimmed. Cameras are out for the duration.

LONG ISLAND SOUNDINGS

By Starboard Tack

▶ The Autumn Dinner of the Cruising Club of America, held at the New York Yacht Club, broke all recent attendance records. In addition to many members of The Corinthians, to which organization the Cruising Club extended a hearty welcome, deckloads of the Navy, both American and British, were there in full force. Rear Admiral Irish, Supervisor of Shipbuilding of the Third Naval District, was senior officer present. Rufus "Bud" Smith spoke of the work of the Coast Guard's Offshore Patrol in this district, and numerous American and British naval officers discreetly touched on their adventures and misadventures on the high seas. All in all, it was a memorable evening, flanked as it was by enough gold braid to establish a nautical gold standard!

▶ Officers of the Yacht Racing Association of Long Island Sound for 1943, elected at the recent Annual Meeting of the Association, are: President, Arthur W. Page, Cold Spring Harbor B.C.; Vice President, John B. Shethar, American Y.C.; Treasurer, Cornelius Shields, Larchmont Y.C.; Secretary, Joseph F. Watkins, Pequot Y.C.

The Executive Committee consists of: Clinton H. Crane, Seawanhaka Y.C.; Lieut. (j.g.) W. Mahlon Dickerson, USNR, Seawanhaka Y.C.; Henry L. Maxwell, Larchmont Y.C.; Frederick W. Wright, Manhasset Bay Y.C.

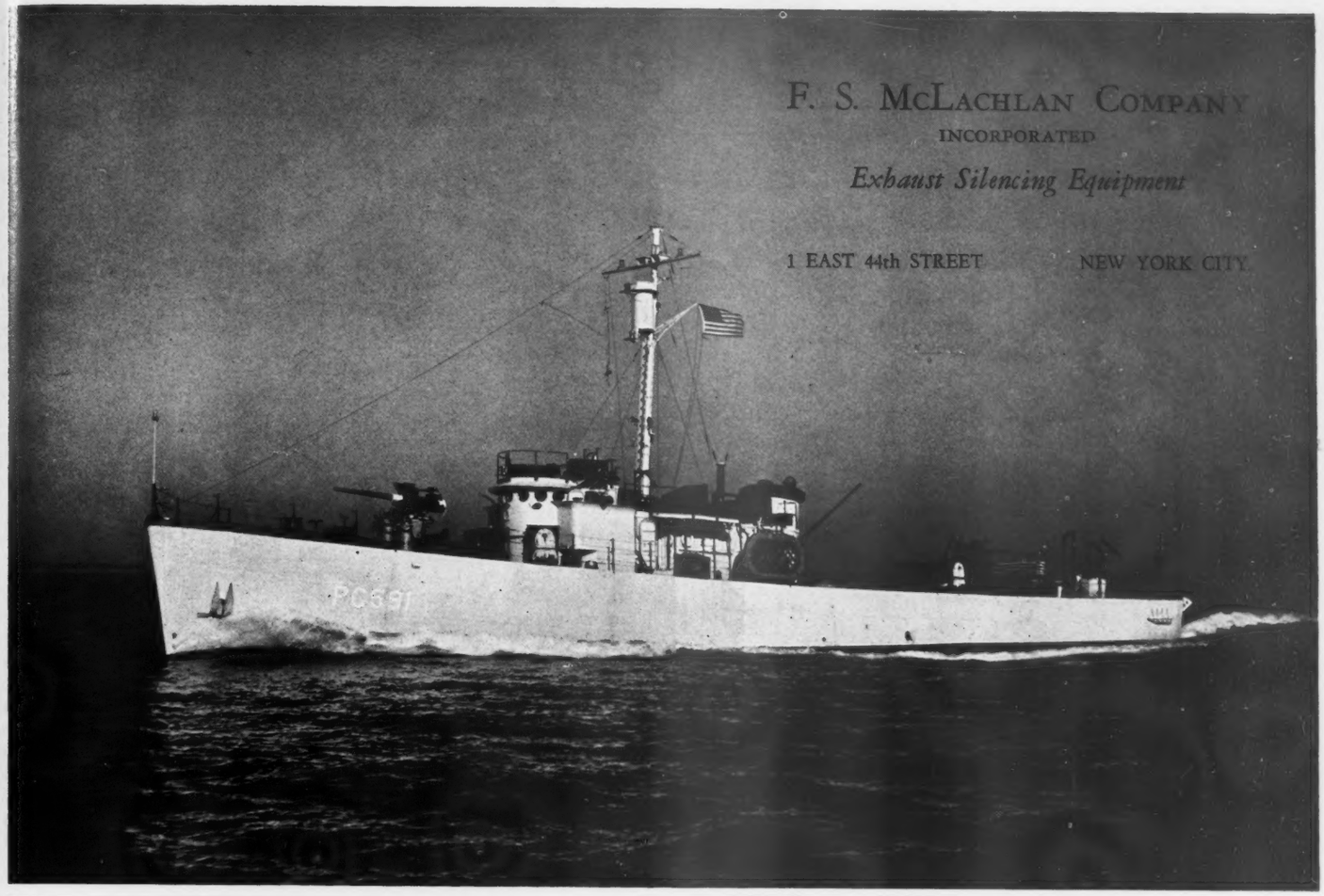
A statistical comparison of championship racing in 1941 and 1942 is interesting. Secretary Joseph F. Watkins' report shows that whereas 2502 yachts started in twenty-two races in 1941, a total of 1267 boats hit the line in the eighteen races sailed this year (there being eighteen races rather than the scheduled twenty, due to inclement weather and other nautical phenomena). Whereas, boat for boat, this is a reduction of nearly fifty per cent, the reason is self evident. On the whole, Long Island Sound yachtsmen were more active than the prophets predicted, which is another way of saying that, come hell and high water, you can't scuttle a yachtsman!

▶ A high water mark of the November calendar was the Fall Dinner of "The Rocking Chair Fleet, Porch No.1," held at the scene of its creation, the Harlem Y.C. This inimitable organization, whose officers are Joe de Castro, Chief Rocker; Jay Heynen, First Rung; Bill Hagedorn, Second Rung; Jake Keppler, Purser; Bill Cesar, Chaplain; Rudy Hepp, Historian, and Sid Treat, Elector, has gone so far as to hand out charters to other "Porches." The Rochester Y.C. holds "Porch No.2;" The Shattemuc Y. and C. C., No.3; The Bay Shore Y.C., No.4; and the Morrisania Y.C., No. 5. Your correspondent is informed that their burgee is the inspired work of Historian Rudy Hepp.

Clubs which are desirous of establishing "Porches" need but direct an application, couched in terms of humble supplication, to the Chief Rocker, The Harlem Yacht Club, City Island, New York.

▶ The nominating committee of the South Shore Y.C. offers the following slate for the coming year: Commodore, Darius W. Sylvester; vice commodore, George J. Smith; rear commodore, George T. Merrick; treasurer, Harold E. Pearson, and secretary, Claude V. Boller.

▶ Henry A. Jackson of Pelham, N.Y., a nationally known figure in yachting circles, has been made a survey officer for the U.S. Coast Guard in the



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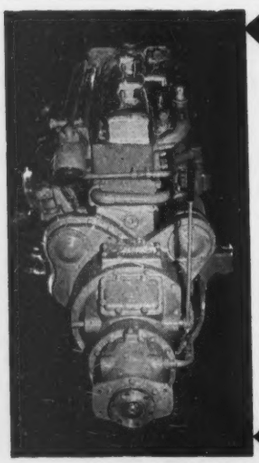

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Third Naval District, with the rank of lieutenant. Lieut. Jackson was Chief Commander of the United States Power Squadrons in 1925-1926 and still serves as chairman of that organization's committee on rules. He also has been prominent in the affairs of the American Power Boat Association for many years, serving as a vice president, and is currently chairman of the A.P.B.A.'s Cruiser Contest Board and Aids to Navigation Committee.

ON COLLEGE CHARTS

By Leonard M. Fowle

▶ The second ranking regatta of the fall racing season is Brown's traditional Invitation Regatta. In perfect weather for mid-autumn, Dartmouth scored a fine triumph over six rivals October 31st on the Seekonk. No one begrudged Emil "Bus" Mosbacher, Jr., and Warner Willcox this final taste of victory in an important regatta before the pair, which carried Dartmouth to the top of intercollegiate sailing, graduates this month. A year ago, the Green ruled the waves but, in their final year at Hanover, rivals have stripped the Indian skippers of all their trophies except the McMillan Cup and Owen Trophy. Yet no one doubts that Mosbacher and Willcox are just as good skippers now as in 1941.

▶ However, on the Seekonk in the Fall Invitation, "Bus" Mosbacher was high point skipper and, with Willcox, provided Dartmouth with 74 points and an eight-point margin over M.I.T. at 66. The other scores were: Rhode Island, 63; Coast Guard, 61; Brown, 56; Holy Cross, 37; and Worcester Tech, 33. Mosbacher, in Division B, had 41 points on two firsts, three seconds, a third, and a fourth. Coast Guard's Arthur Fontaine was runner-up with 36. In the A Division, Brown's Bob Barningham led with 36, but Willcox was second at 33 to assure the Green of the team victory over Tech's skippers, Hal Boericke and Ralph Evans.

▶ From the collection of sailing talent it gathered, the regatta on the Thames under Coast Guard colors, October 25th, was tops for the smaller events, as it brought together four of the five highest ranking I.C.Y.R.A. sailing teams as Harvard, Dartmouth, Yale, and Coast Guard met in three types of boats – Stars, International 14-footers, and 12-foot dinghies. Harvard outscored its rivals with 111 points to Dartmouth's 92, Yale's 86, and Coast Guard's 85 in extremely good racing under poor conditions.

Those rivals of old standing on Long Island Sound, Dave Noyes, of Harvard, and "Bus" Mosbacher, of Dartmouth, tried their hands at Stars and the result was a 30-point deadlock. Warner Willcox outsailed Dick Besse of Yale, 32–30, in the Fourteens as Harvard's George O'Day and Commodore Norman Barlow, of Coast Guard, trailed. The Crimson's John Burton was high point skipper at 33 in the 12-footers, while Cliff Lewis, of Yale, tallied 32; Arthur Fontaine, of Coast Guard, 27; Charley Daniel, of the Cadets, and Lyman Bullard, of Harvard, 26 each.

▶ A regatta supposed to rival this event for keen competition proved less hard-fought when M.I.T. reclaimed the Jack Wood Trophy in the traditional Brown-Dartmouth-Harvard-Tech meet under Harvard colors, sailed in Community Dinghies on the Charles, October 18th. From the second race in a series of eight contests in two divisions, Tech's skippers (Sam Parkinson, Hal Boericke, Ralph Evans, and John Fennessy) led the field by a steadily mounting margin which eventually reached 19 points. The final scores: M.I.T., 184; Harvard, 165; Dartmouth, 143; Brown, 83.

▶ A week earlier, Harvard and Tech tied in the Greater Boston Intercollegiates on October 12th, also under the Crimson burgee, for the first recorded deadlock in a major I.C.Y.R.A. event. The score stood 75 each with Community S.A. scoring 68½; Northeastern, 47; Boston University, 46½, and Boston College, 31. The official I.C.Y.R.A. method of breaking ties failed for in 17 races Harvard and Tech each beat the other eight times and each suffered a disqualification in the same race. Each team had seven firsts, so quarter-points for winning would not have helped. As no sailoff could be arranged, the regatta goes down as a tie.

▶ Holy Cross warmed up for the Schell Trophy by a successful defense of the New England Associate Member Championship Trophy in the first regatta ever sponsored by the Boston College Y.C., sailed in Tech's boats, on October 25th. However, the home team of skippers, Jimmy McSorley and Jim Keenan, gave the Holy Cross team a scare and lost by only two points, 74–72. The other scores were: Rhode Island, 66; Worcester Tech, 38; and Middlebury, 24. McSorley won high point honors with 45 against 44 for Arthur Ogden, of Holy Cross, but Tom Macdonald's 30 against Keenan's 27 put the Crusaders over.

▶ The last minute withdrawal of Syracuse left the Middle Atlantic Associate Member Championships at Princeton, October 18th, a dual meet between Drexel Tech and Lehigh, with the Philadelphians winning 23–17.

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YACHTING

Published monthly at Concord, New Hampshire, for October 1, 1942.

State of New York } ss.
County of New York }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Herbert L. Stone, who, having been duly sworn according to law, deposes and says that he is the Editor of YACHTING magazine and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Herbert L. Stone, 205 E. 42nd Street, New York; Editor, Herbert L. Stone, 205 E. 42nd Street, New York; Managing Editor, Charles H. Hall, 205 E. 42nd Street, New York; Business Managers, None.

2. That the owners are: Yachting Publishing Corporation, 205 E. 42nd Street, New York; Robert N. Bavier, 122 Sutton Manor, New Rochelle, N. Y.; Thomas H. Blodgett, 405 Lexington Avenue, New York; Nellie H. Bowles, 444 Madison Ave., New York; Carleton S. Cooke, 2 Wall St., New York; Hendon Chubb, 90 John St., New York; Samuel Dauchy, 4455 Hermosa Way, San Diego, Cal.; Fred B. Dalzell, 17 Battery Pl., New York; Pierre S. du Pont, 3rd, du Pont Bldg., Wilmington, Del.; Geo. B. Farnsworth, c/o U. S. Trust Co., 45 Wall St., New York; Henry C. Fownes, c/o Stamford Trust Co., Stamford, Conn.; Ernest Gregory, Cedar Gate, Darien, Conn.; Carl Kappes, Jr., 19 Cayuga St., Rye, N. Y.; Priscilla F. Loomis, 17 E. 84th St., New York; Mardan Corp., James C. Kennedy, Jr., nominee, 111 Eighth Ave., New York; Clifford D. Mallory Estate, 11 Broadway, New York; William McMillan, 1012 N. Calvert St., Baltimore, Md.; H. Morton Merriman, St. Michaels, Md.; George W. Mixter, 165 Broadway, New York; H. S. Morgan, 2 Wall St., New York; George Nichols, 40 Worth St., New York; Frederick Pope, c/o Fiduciary Trust Co., 1 Wall St., New York; Richard J. Reynolds, Reynolds Bldg., Winston-Salem, N. C.; George E. Roosevelt, 30 Pine St., New York; Philip J. Roosevelt Estate, 30 Pine St., New York; Rudolph J. Schaefer, 430 Kent Ave., Brooklyn, N. Y.; Herbert L. Stone, New Canaan, Conn.; Redelia G. Stone, New Canaan, Conn.; Henry C. Taylor, 55 Worth St., New York; Herbert C. Wuesthoff, 828 Milwaukee St., Milwaukee, Wis.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

HERBERT L. STONE,
Editor.

Sworn to and subscribed before me this 30th day of September, 1942.

EUGENE JELINEK,
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[SEAL] (My commission expires March 30, 1943.)

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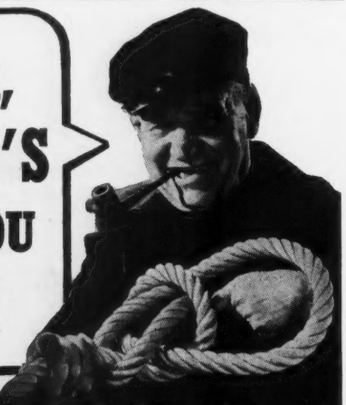

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▶ The Haverford Nautical Club sponsored its first dual meet to christe its fleet of four Penguins on October 25th, with Pennsylvania as the o ponent, racing off the Philadelphia Corinthian Y.C. Essington statio Charles Calhoun led Haverford's team to an 11¼–6¼ victory.

▶ It was a source of regret to all hands that Navy cancelled its plans t attend the Schell Trophy regatta, for the Midshipmen have been und feated since their last trip to Boston in the fall of 1941 and some of the to New England teams were itching for a crack at the strong Annapolis crews The Midshipmen added four more victims to their list during October b winning two regattas on the Severn. With Tom Budd as high-point skipper Navy tallied 35¾ to Penn's 30 and Drexel's 17¼ on October 3rd and, week later, as Midshipman J. I. Bryan turned in the best work, Navy ha 45 points, Stevens 26, and Haverford 11.

▶ Following the executive committee meeting at M.I.T. on October 31st, the Inter-Collegiate Yacht Racing Association announced the election of the Bowdoin Y.C. as an Associate member, bringing the enrollment of the organization to 29 colleges. The same session also set the date for the annual winter meeting of the I.C.Y.R.A., which this year, because of accelerated college courses, will include an election of officers for the first time, as December 23, in New York, the exact location and time to be announced later.

PACIFIC NORTHWEST CAT'S-PAWS

By Ray J. Krantz

▶ Most pleasing to Uncle Sam is the speed with which all types of smal vessels destined for military duties are sliding down the ways of Pacific Northwest shipyards. Late in October, two YMS mine sweepers were launched by two Seattle shipyards. One slid down the ways on October 24th at Seattle Shipbuilding and Drydocking Corp.'s yard on Salmon Bay, with Mrs. Anne Bivins doing the customary honors with the champagne bottle. Mrs. Bivins is the wife of R. B. Bivins, secretary-treasurer of the shipyard. Herbert Blaney, manager of Associated Shipbuilders' Lake Union plant at Seattle, looked happy on October 27th when his workmen launched *YMS-287*. Sponsor was nine-year-old Barbara Louise Hubbert.

▶ The Army is much interested in small vessels these days, also. Take, for example, two new 104′ aircraft rescue vessels which hit the water at the Sagstad Shipyards, Seattle, early in November. On the 9th of November, Mrs. Thelma Nilsen, daughter of S. E. Sagstad, christened *P-214* as she started down the ways, and, two days later, Mrs. Margaret Sagstad sponsored *P-215*.

▶ Barbee Marine Yards, Inc., busy with a variety of shipbuilding work, launched two new 50′ Coast Guard patrol boats late in October.

▶ As soon as the Sagstad Shipyards, Seattle, launch two more 104′ aircraft rescue vessels the building sheds will be cleared for the construction of two 126′ twin screw ocean-going Diesel tugs for the War Department. A third will follow when one of the two sheds is available. Speaking of Army boat construction, Jim Hart, who formerly was associated with O. H. Freeman in the operation of Fremont Boat Market, Seattle, is now with the marine design division of the Army at Seattle.

▶ Members of the Seattle Y.C. held their annual election on October 31st. Roy Raphael, cruiser *Vivienne*, was elected commodore; Allen Engle, cutter *Neoga*, vice commodore; E. G. Watson, cruiser *Molly-O*, rear commodore; Eugene Kolb, auxiliary ketch *Seaway*, secretary; and John Warburton, treasurer. Three new directors were selected: Arthur Russell, J. F. Unicume and Roy Berry. Other directors include Tom Owen, Eustace Vynne, Sr., John Kucher, William Warren, M. M. Chism and George Parsons. Other new officers are: Fleet captain, Ray Krueger; fleet surgeon, Dr. Charles B. Ward; measurer, Edwin Monk; assistant measurer, Norman Blanchard, Jr.; and librarian, William R. Hedley.

▶ Malone Hutchins, manager of the Seattle Y.C., announced the following new committee chairmen for the 1942–1943 season: Membership, Harold Murray; entertainment, L. A. Robinson; regatta, Norman Blanchard, Jr.; power boats, Norman Bost; sail boats, William Blethen; moorings and docks, J. D. Sparks; advisory, Robert S. Macfarlane; junior advisory, Eustace Vynne, Sr.; publicity, M. M. Rinearson; yearbook, Robert S. Moore; *Binnacle* editor, Harold Allen; and Barnacle Bill, William R. Hedley.

Andrew Griswold has joined the Seattle Y.C., adding his 80′ Diesel yacht *Cadrew* to the club's fleet. Two other new members are Edwin K. Dawson, owner of a 26′ cruiser; and Robert S. Dole, Lieut., U.S.N.R., who has acquired a flattie sail boat. Dole, assistant in charge of Navy recruiting at Seattle, formerly was active in Chicago yachting circles.

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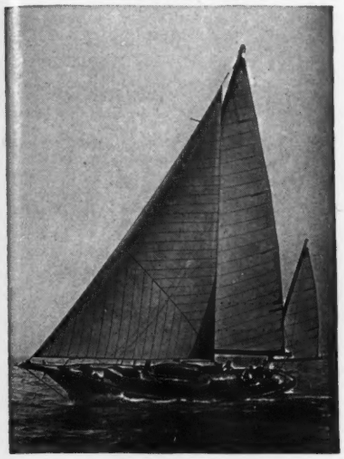

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▶ On November 15th, an all-day meeting culminating in a dinner was held at the Seattle Y.C., for 60 division commanders and flotilla leaders of the Coast Guard Auxiliary in Washington and Oregon.

▶ Turkeys and hams were plentiful at the Seattle Y.C. on November 21st when the club held its annual "turkey shoot," one of the outstanding events of the club's calendar. Over 100 turkeys and hams are given away to members at these lively sessions, according to Malone Hutchins, manager of the club.

▶ Joe Dyer's Astoria Marine Construction Co., Astoria, has delivered the last of its original contract YMS mine sweepers of the 135′ classification to the U. S. Navy. The number four boat carried the prosaic designation, *YMS-103*. (Author's note: These 135-footers deserve a name as well as an identifying number. How about it, Navy?)

▶ There were plenty of splashes on Bellingham Bay November 15th when the Northwestern Shipbuilding Co. launched five new 114′ passenger and freight vessels for the Army, in a "field day" of launchings. This yard has contracts for 90′ barges, YMS mine sweepers, 165′ Navy rescue tugs, and 127′ twin screw Army tugs. Construction on these vessels is proceeding at a swift pace. Charles E. Taylor and Acme Mansker, well known in Seattle marine circles, are associated with the shipyard.

▶ *Cat's-Paws:* Cal Blanchard, formerly with the N. J. Blanchard Boat Co., Seattle, is now Army inspector at the Barbee Marine Yards at Bryn Mawr, Washington. R. M. Tollefson, Ensign, U.S.N.R., formerly a well known Longview, Wash., yachtsman, is now with the staff of the Captain of the Port, U.S.C.G., Seattle. . . . Motor Boat Marina, Seattle Chris-Craft distributors, in a unique conversion has changed over its former yacht showroom to a small boat production line and a sizable fleet of 26′ mine yawls for the Army is now under construction. President of the firm is Jerry Bryant, Latham Goble is vice president. . . . Stanley Brand, well known on the Seattle waterfront, is skipper of a 135′ mine sweeper, his rank, full lieutenant.

COMET COMMENTS

By Malcolm D. Lamborne, Jr.

▶ The annual meeting and dinner of the Comet Class Y.R.A. will be held January 16th at the New York Y.C., New York, the executive committee of the Class decided at a recent meeting in New York. This will mark the second year Comet sailors have met there for their annual conclave.

While the Class has decided not to hold a national championship regatta in 1943, officials will stress the recommendation that fleet eliminations be held next summer just as though skippers were fighting it out for the right to attend the big regatta. Depending upon conditions next year, it is hoped to hold one or more Comet events of a national scope.

Meanwhile, the Executive Committee has recommended that regional vice presidents give consideration to staging more district championships within regions. This, it is felt, will cut down on long hauls for Comet skippers — a real consideration in these days of limited transportation facilities. Vice presidents will be asked to submit definite plans of such events by January 1st. Encouraging reports of the Class come from President Verner Smythe. He writes: "The activities of the Class are far above expectations in all quarters, and it appears that there will be a great deal of local sailing next year." The Class has decided not to publish a new yearbook for 1943 but, instead, will issue a supplement to the 1942 edition.

The Nominating Committee, which will submit the slate of officers at January's meeting, is composed of Col. H. H. Jacobs, Herbert L. Stone and John J. Fernandes.

▶ The Medford (Mass.) B.C. fleet climaxed a banner year with its annual trophy night last month. Commodore Harry Browning served as toastmaster. High praise went to Hank Moore and Lynn Marsh, who served as co-chairmen of the Regatta Committee, for their efforts in staging events through the year. Out of the club's 46 boats, 30 were Comets. A total of 43 regular races were staged during the year.

Prizes went to the following: Andrea Redding, *Redwest*, club championship for Comets; Jack Reynolds, *Onrust*, Blake Trophy; Edward Blake, *Ed-Bill*, Mayor John C. Carr Trophy for the skipper showing the greatest improvement; Redding, special Fourth of July trophy; Roland Hanson, *Viking*, special trophy for skipper not winning a first, second or third in regular races.

Redding came off with the largest collection of prizes for, in addition to the above mentioned, he received a prize for Comet skipper under 17 years, and another for the skipper winning the first five races of a summer series. Blake won the closing race of the season, held in October.

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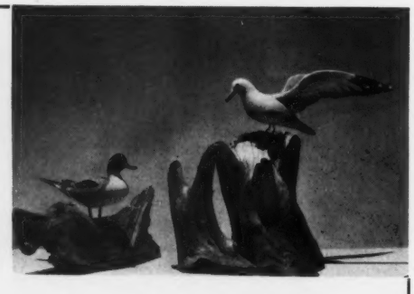

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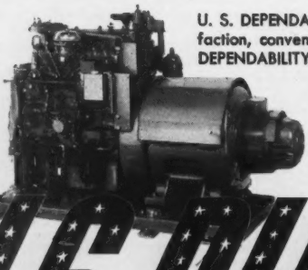

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▶ Comets scored a new high in entries in the fall racing of the Potomac River S.A. in Washington. The 14 Comets out were the largest field of four classes. Clarke Daniel's *Robert E. Lee* was first, Edward Braddock's *Toby* second, and Capt. E. L. Cochrane's *Scuttlebutt*, third.

Following the last race in November, a group of Comet skippers in the Capital organized a down-river cruise to and rendezvous at the Cut, opposite Alexandria, where food was cooked over a campfire.

▶ Tightening up on skippers who fail to pay their dues, the Executive Committee has ordered the Class Secretary to check the list of boats figuring in this year's High Point Trophy tabulations with a view of eliminating those boats whose skippers have not paid dues for the year. It's only reasonable to expect that a Comet skipper competing for this national prize be an active member of C.C.Y.R.A.

Certificates to winners of fleet eliminations during the past year will be awarded at the annual meeting next month. This practice is expected to continue indefinitely.

▶ Fall racing on the Severn River at Indian Landing came to a close late in October. Winner of a seven-race series was Bob Welsh, in his veteran *Sky Fire*. Second place was won by Tom NcNemar's *Sappho* and third by Leslie Maynard's *Kelpie*.

DETROIT RIVER AND LAKE ERIE NEWS

By Walter X. Brennan

▶ Attendance at the Inter Lake regatta in August brought out an unexpected attendance. Sail boats competing numbered 140 as compared to 150 the year before. As power boat competition was dropped from the program this year, and many craft had gone into the services, the number of this type of craft was notably reduced. Nevertheless, 796 persons registered for the shore activities as compared to 800 in 1941.

▶ Fred Ford's 54′ Alden yawl *Evening Star* and Henry Bodman's schooner *Brilliant* have gone East for the Coastal Patrol. Cy Ericson was in charge of the Ford boat while Harry Peterson took *Brilliant* out of local waters. Robert Marx' 54′ ketch *Panchara III* was to follow.

▶ Commodore Maurice Robinson, Detroit Ice Y.C., called a meeting of the organization November 12th, at the Bayview Y.C., to get the season under way. He reported that the club would have 30 Class E, or Skeeters, in competition this year. All racing will be local, the international events having been called off for the duration.

▶ New commodores at Detroit are Philip J. Phillips, who will head the Bayview Y.C., for 1943, and J. A. Summerlee, new commodore of the Detroit Y.C.

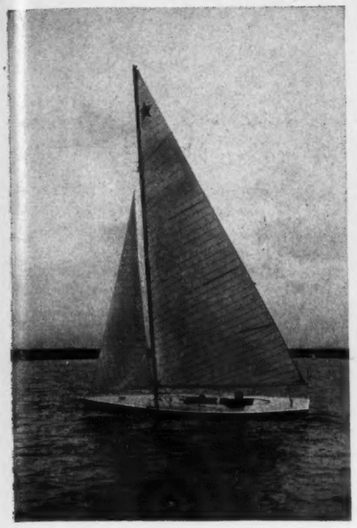
▶ Les Milkey, of Sandusky, O., active in Great Lakes yachting for several years, died October 30th as the result of an airplane crash over the Gulf of Mexico. He was a lieutenant in the Civil Air Patrol on the "sub" watch.

▶ Local units of the U. S. Coast Guard Auxiliary put on an amazing show of strength October 11th when 325 boats passed in review before Lieut. Commander E. L. Bodkin, head of the Detroit and St. Clair River area. It was estimated that 1,500 members manned the boats. The Civil Air Patrol, which has been coöperating with the Auxiliary, joined in the review with seven seaplanes.

▶ While summer plans indicated that the Detroit and St. Clair rivers would be kept open this winter for operation of the ore carriers, and local yachtsmen would be called upon for patrol, congestion at the unloading docks will probably cause the plans to be abandoned. Last summer the Coast Guard took over three Detroit River ferry boats which are famous for their icebreaking capacities, but record loadings of the freighters all through the summer have swamped the docks and railroad facilities so that post-season operation of the boats will not be required. The Coast Guard began removing aids to navigation on the Lakes in November, as usual.

▶ Miss Mildred Lewis, active in cat boat sailing on Lake St. Clair, has been commissioned Lieut., j.g., in the Waves. Lieut. Lewis has specialized in South American languages.

▶ Annual meeting and election of officers of the Detroit Power Squadron will be held on December 3rd. Those nominated are: Commander, Mark L. Rowley; lieut. commander, George W. Drennan; first lieut., Herschell Lutes, and Ralph Bean; secretary, Richard Weber; treasurer, Richard Sinclair.



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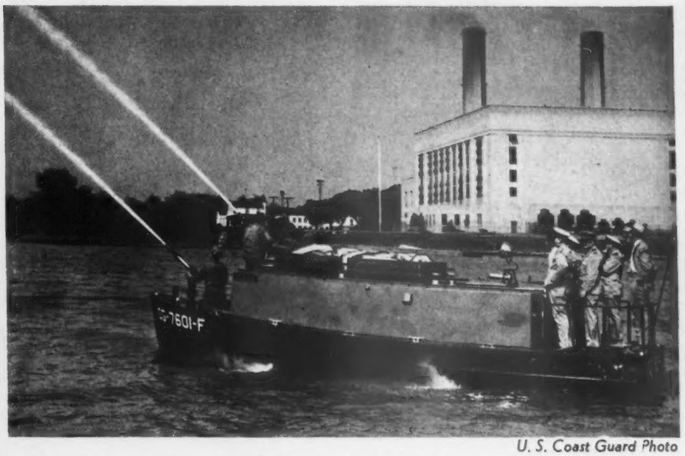

U. S. Coast Guard Photo

Four 150 hp. engines propel this prop-less Coast Guard fire boat by pumping 800 gallons of water per minute each through underwater jets

NEWS OF THE INDUSTRY

FIREBOATS FOR PORT PROTECTION

▶ A fleet of 252 boats, 101 of which embody a new design in propulsion and fire fighting machinery, is being formed by the United States Coast Guard to provide the waterfronts under its care with protection against fire. The first fireboats ever built as such for the Coast Guard, the 101 craft of new design are being constructed by the Hanley Engineering Service, Prospect, Ohio, and the first to be completed have recently undergone tests.

The Coast Guard has acquired 120 other boats from private owners and sent them to yards for conversion, and ordered the remaining 31 from firms in various parts of the country.

The Hanley boats are equipped with four pumps used not only for propelling the craft but also for pumping water upon fires. In propelling the boats forward, the pumps draw water in through a valve in the bow and eject it through a valve astern. The reverse process is used in backing. The pumps can be used to maneuver the craft when at the scene of a fire, and at the same time pump 800 gallons of water a minute apiece at 120 pounds pressure.

With an over all length of 30′ 6″, a beam of 10′ 6″ and a draft of 18″, the boats can operate virtually anywhere. They probably will be operated by four-man crews. While the fireboats to be built for the Coast Guard by the Hanley Co. are the first jet-propelled vessels to be built specially for the service, the Seattle district some time ago made successful use of jet propulsion. At the Seattle Harbor Patrol Base a number of Lundeen lifeboats, a type not now used for regular service, have been equipped for self propulsion through a jet arrangement somewhat similar to that on the Hanley boats. These boats, used for fire fighting, mount one pumper unit of 500 g.p.m. capacity or two smaller units.

NEW "HELL" SHIPS GO DOWN THE WAYS

▶ *Hell Hawk, Hell Holocaust, Hell for Mussolini, Hell Hound, Hell Hatchet, Hell Hag, Hell Halter, Hell Hazard* and *Hell Hinges* are the latest names which the Albina Engine & Machine Works have given to the sub-chasers which they are constructing. Their imaginative ability should cause the official who bestows names on Pullman cars to look to his laurels!

Employees and their families had the opportunity to inspect the wharves and shops of the Industrial Canal Plant of Higgins Industries on the occasion of the award of the Army-Navy "E" to the corporation

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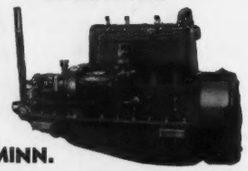

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▶ Tom Guerin, well-known to the marine trade as a designer of ventilator blowers, exhaust fans, pumps and other fittings, is now associated with the Allied Marine Equipment Co., of Hackensack, N. J. This firm is now prime contractor and sub-contractor for all types of marine equipment and boat hardware made of brass, bronze, malleable iron and cast steel.

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NAVY USES GLASS FIBERS TO REPLACE ALUMINUM

▶ The Navy Department, in coöperation with Owens-Corning Fiberglas Corporation, has developed a glass fiber board for the heat insulation and interior finish of fighting ships and auxiliary vessels which, since the first of the year, has saved 5,500,000 pounds of aluminum, with other scarce, lightweight materials that would otherwise have been used for this purpose. Developed as a part of the Navy's program to save critical materials in the construction of its ships, the new board is made of compressed glass fibers treated with a binder. It is both light in weight and fireproof. On the service side it is faced with incombustible glass fiber cloth which is applied to the board with flame-proof cement.

NEWS FLASHES

▶ W. A. Robinson, Inc., of Ipswich, Mass., has recently been awarded the Army-Navy "E." . . . . R. R. Rice of Rice Bros. & Co. revealed some interesting statistics upon the occasion of the launching of *SC 1043* at their Rockport, Texas, yard. "Much of the materials that enter into the construction of this ship," said Mr. Rice, "was growing in the forests three months ago. We see planking from the far west — 66 strakes in all, fastened with 21,780 spikes, and in the deck we see 64 strakes held in place with 12,800; long strings of oakum and cotton that have been driven into more than two miles of seams; 250 gallons of paint; 14 steel tanks for water, fuel and oil." . . . . Word comes from the Michigan Wheel Co. that six of its propeller reconditioning service stations have voluntarily surrendered all or part of their equipment for service overseas. . . . The launching of one of the largest vessels built in Bellingham, Washington, since World War I took place when the Bellingham Railway and Boatbuilding Co. launched its first salvage vessel. The launching of *Barrs 9*, as the vessel is known in Navy parlance, was unusual in that she went down the ways bow first and the sponsor broke the beribboned bottle of champagne over the stern rather than the bow. A mine sweeper, *YMS 272*, was launched at the same time. . . . Nine 3,000-ton cargo vessels for the U. S. Maritime Commission are being built at the Leathem D. Smith Shipbuilding Co. These ships are of heavy construction and are all-welded. Scheduled construction calls for one ship a month.

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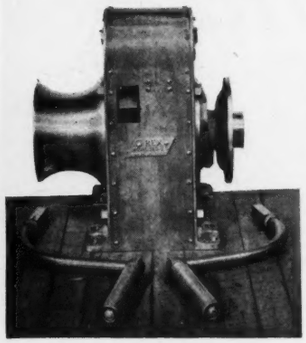

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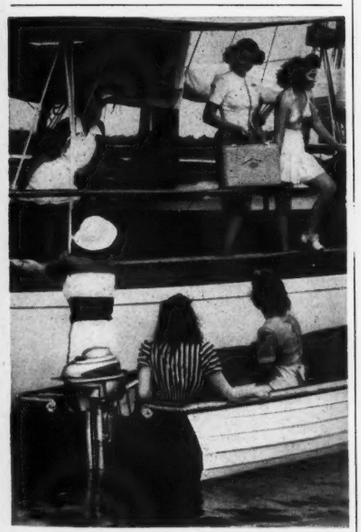

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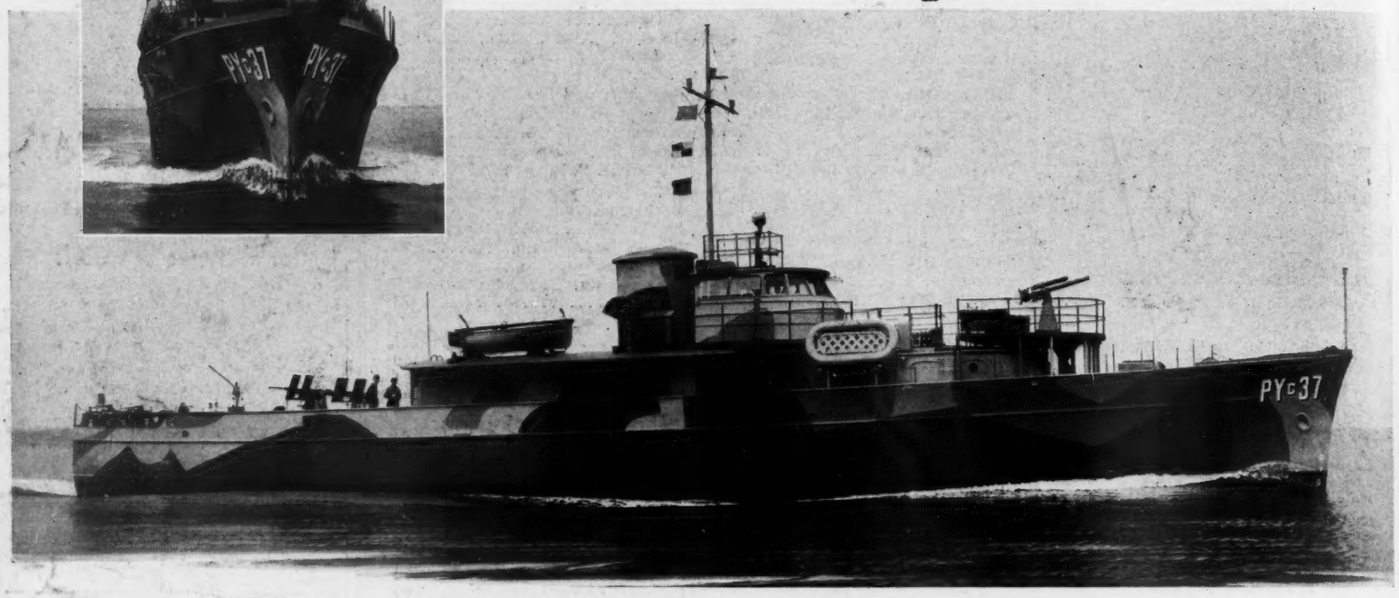
The Power Behind her Warpaint—



comes from her peacetime Cooper-Bessemer Diesels

Last of the big yachts to be started before Pearl Harbor, the "Haida" has been stripped of her peacetime splendor and converted to war. In this photograph, you can see some of the many changes made in her during her completion for the Navy.

But you cannot see that her Cooper-Bessemer Diesels were NOT changed. Her engines, selected originally as the best to be had, will provide the PYc37 with exactly the type of power plant that the Navy needs — for quick starts and rapid acceleration, smooth flexibility, plenty of speed and ample reserve power.

Years of building diesels to meet Navy standards means that a Cooper-Bessemer, whether built for peace or war, gives you maximum service under all conditions.

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New York Washington Gloucester, Mass. St. Louis Houston
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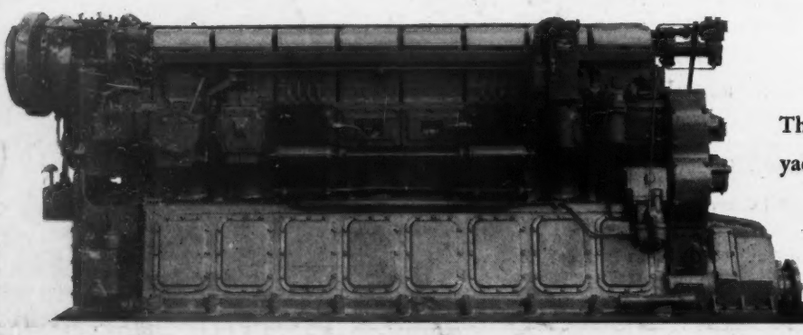

The PYc37 is Col. Max C. Fleischmann's former yacht "Haida," converted for war by Robert Jacob, Inc., City Island, N. Y.

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SIX HITCHES

...and you know your stuff

HOTPOINT-EDISON ELECTRIC GALLEY EQUIPMENT HAS SERVED ON U.S. SHIPS FOR A QUARTER CENTURY

A GREAT RANGE FOR SMALL SHIPS

Typical of the keen understanding Hotpoint-Edison has for naval and maritime requirements, this MR-200 Electric Galley Range is built for small ships with crews of five to twenty. Dimensions 30" wide x 35⅝" deep. Connected load 12.0 KW. Standard voltages 115 (110/120), 208 (197/219) or 230 (220/240) AC or DC. Ranges and other equipment for ships of all sizes available.

TWENTY-FIVE years ago the first Hotpoint-Edison Electric Galley was installed on American ships. Its performance was so outstanding as to set a new standard for galley equipment. Today, after a quarter century at sea, most of that same equipment is still on duty.

The advantages are so significant that the day is at hand when only modern electric galley equipment should be installed aboard naval and maritime ships. Here are a few reasons:

1. No fire hazard because there is no flame.

2. Smoke and soot are eliminated. No galley smoke to help the enemy.

3. Compact design. No auxiliary pipes, vents, tanks, valves, gauges or heat spacers to use vital metals and valuable space.

4. Liquid fuels can generate electricity more efficiently than they can cook food. One BTU of electricity vs. nearly ten of oil for cooking. Coal may be saved about ten pounds for one by cooking electrically.

5. Conserves oil, saves storage space.

6. Electric galleys are seaworthy. Rough weather, changes in speed, sudden change of course, do not affect them. No oil to splash.

7. Cleanliness is built into Electric Galley Equipment.

8. It is economical to install and operate.

With a record of "six hitches and never on report", Hotpoint-Edison is now being installed on U. S. Naval and Maritime vessels of all sizes. It promises to do even a greater job in the future than in the past. Our specialists are prepared to work with naval architects and shipyards. Edison General Electric Appliance Co., Inc., 5666 W. Taylor St., Chicago, Ill.

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Where accuracy and timing count

Deadly "tin-fish" launched from Motor Torpedo Boat tubes must be accurately aimed and properly timed to bring results.

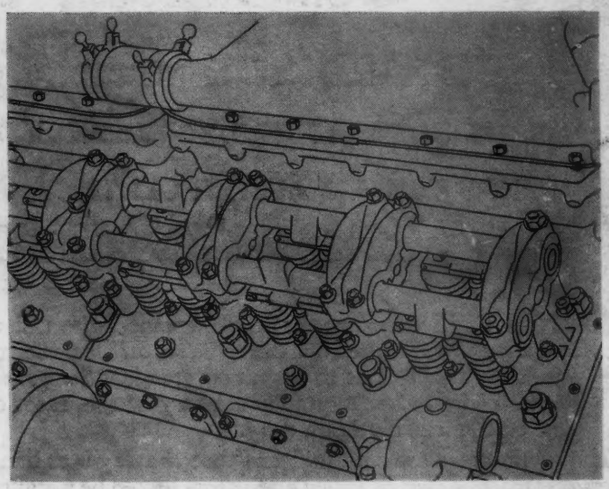
In such boats powered by Sterling Admirals, *accuracy* and *timing* begin deep down in the design and operation of their powerful engines. The unusual valve actuating mechanism providing separate intake and exhaust camshafts is a good example of this.

As shown in the diagram, a single lobe placed midway between bearings operates the twin valves of each cylinder by direct action through a tee-shaped cam follower. This arrangement, identical for both intake and exhaust valves reduces weight and offers many other advantages.

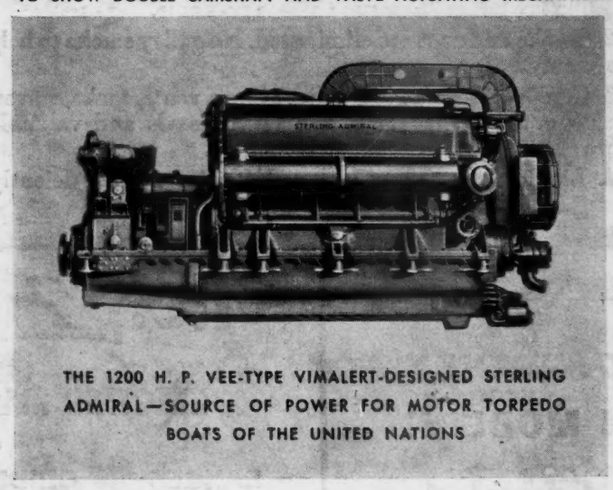
By balancing valve spring forces it permits cam lobes to maintain true alignment with the followers. This distributes the load evenly on camshaft bearings and by preventing deflection of the camshaft greatly prolongs the life of cams and followers.

Camshaft action in line with valves dispenses with rocker arms, thus eliminating side thrust. This greatly reduces wear on valve stems and guides as well as valve seats and inserts.

This mechanical arrangement insures the highest possible degree of accuracy in valve timing, so essential to efficient engine operation. It also facilitates valve adjustments or overhaul by engine mechanics.



RIGHT CYLINDER BANK OF STERLING ADMIRAL WITH COVER REMOVED TO SHOW DOUBLE CAMSHAFT AND VALVE ACTUATING MECHANISM



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